G. W. FLYNN & CO.,
BLANK-BOOK MANUFACTURERS,
PRINTERS
AND
Engravers,
URBANA, ILL.

No. 3797
Department of
q728.6 W872 Vol I
LIBRARY OF
Illinois Industrial University.
CHAMPAIGN, ILLINOIS.
Books are not to be Taken from the Library Room.

The person charging this material is responsible for its return to the library from which it was withdrawn on or before the **Latest Date** stamped below.

Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University.

UNIVERSITY OF ILLINOIS LIBRARY AT URBANA-CHAMPAIGN

JAN 5 1978

MAY 7 1979

JAN 0 7 1992

DEC 1 0 1991

L161—O-1096

Digitized by the Internet Archive
in 2017 with funding from
University of Illinois Urbana-Champaign Alternates

https://archive.org/details/woodwardsnationa01wood

Woodward's

National Architect

BY

GEO. E. WOODWARD, ARCHITECT,

&

Edward G. Thompson, Architect.

Designs, Plans & Details

Engraved & printed by KORFF BROS. New York.

UNIVERSITY OF
LIBRARY
ILLINOIS.

WOODWARD'S

NATIONAL ARCHITECT;

CONTAINING

1000 ORIGINAL DESIGNS, PLANS AND DETAILS,

To Working Scale,

FOR THE

PRACTICAL CONSTRUCTION OF DWELLING HOUSES

FOR THE

COUNTRY, SUBURB AND VILLAGE.

WITH

FULL AND COMPLETE SETS OF SPECIFICATIONS AND AN ESTIMATE OF THE COST OF EACH DESIGN.

BY

GEO. E. WOODWARD, ARCHITECT,

Author of "Woodward's Country Homes," "Woodward's Cottages and Farm-Houses," Woodward's Suburban and Country Houses," Etc.,

AND

EDWARD G. THOMPSON, ARCHITECT.

NEW YORK:
GEO. E. WOODWARD, 191 BROADWAY.

Entered according to Act of Congress, in the year 1869, By GEO. E. WOODWARD, in the Clerk's Office
of the District Court of the United States for the Southern District of New York,
and Copy deposited in the Library of Congress.

LIBRARY
ILLINOIS.

INTRODUCTION.

In presenting to the public a new work on Architecture, we have endeavored to occupy a field not hitherto covered in a similar manner, and also to fulfill a demand that has been made on us for some years past for practical working plans adapted to the wants of the great mass of the inhabitants of our country—plans, elevations, working details, estimates, and specifications so clearly made out and so thoroughly and practically prepared, that they may at once be placed in the hands of a builder for execution.

The plan of this work embraces designs for houses of moderate valuations, estimated at New York prices as a basis, with such detail prices as will enable one to ascertain the cost in his own locality by comparison with the different rates of prices that always exist in different sections of the country.

The forms of specifications given are such, that they may be adapted to any of the designs, so that full and final estimates can be obtained from local builders. They will also serve as hints for the preparation of specifications for any class of dwelling houses.

Front and side elevations, plans and detail drawings to working scale are given for each design, and in many cases perspective views are shown. In addition, we have added a large number of miscellaneous details which will enable any one to select such styles of finish as he may prefer.

The drawings are so carefully made and figured as to explain thoroughly their meaning without further description than that found necessary in the specifications, and we have, therefore, carefully avoided all theories, essays, or speculations on the subject, believing we can convey more practical and valuable information by carefully-executed drawings than by whole volumes of descriptive matter. From a long experience as Architect, author and publisher, we believe this work will fully meet the popular demand, and be found alike indispensable to those who propose the erection of buildings, as well as to all classes of mechanics engaged in their construction.

We are indebted to Mr. Samuel F. Eveleth, Architect, N. Y., for designs on Plates Nos. 70 and 71, and Miscellaneous Details on Plates numbered 82 to 88, 89 to 94 and 96, inclusive.

5797

ILLINOIS.

WOODWARD'S NATIONAL ARCHITECT.

DESCRIPTION OF PLATES.

ALL DRAWN TO WORKING SCALE.

Estimates made in accordance with New York price list given on another page, which must be altered to suit local prices wherever used.

DESIGN No. 1.	*Plate* No.	1.	Perspective view of Dwelling House. To cost $7,000.
	" "	2.	Front and side elevation. $\frac{1}{16}$-inch scale.
	" "	3.	First and second floor plans, " "
	" "	4.	Section of house and details, to $\frac{1}{2}$-inch scale.
			Carpenters' Specification in full.
			Masons' " "
			Plumbers' " "
DESIGN No. 2.	*Plate* No.	5.	Perspective view, French-roof Cottage. To cost $5,000.
	" "	6.	Front elevation. $\frac{1}{8}$-inch scale.
			Right side elevation. $\frac{1}{16}$-inch scale.
	" "	7.	Left side elevation. $\frac{1}{16}$-inch scale.
			First and second floor plans. $\frac{1}{16}$-inch scale.
	" "	8.	Section of house. $\frac{1}{8}$-inch scale.
			Details. $\frac{1}{2}$-inch scale.
	" "	9.	Details of front bay window, dormer, etc.
DESIGN No. 3.	*Plate* No.	10.	Perspective view of Small Cottage. To cost $2,000.
	" "	11.	Front and side elevations. $\frac{1}{8}$-inch scale.

Design No. 4.	*Plate* No.	12.	Perspective view showing a future addition to Design No. 3.
	" "	13.	Front elevation. $\frac{1}{8}$-inch scale.
			Side elevation. $\frac{1}{16}$-inch scale.
	" "	14.	First and second floor plans. $\frac{1}{16}$-inch scale.
		15.	Section of house. $\frac{1}{8}$-inch scale.
			Details. $\frac{1}{2}$-inch scale.
	" "	16.	Details of gables and front bay windows, $\frac{1}{2}$-inch and $1\frac{1}{2}$-inch.
Design No. 5.	*Plate* No.	17.	Perspective view of Cottage. To cost $4,000.
	" "	18.	Front elevation. $\frac{1}{8}$-inch scale.
			Left side elevation. $\frac{1}{16}$ scale.
	" "	19.	Right side elevation. " "
			First and second floor plans. $\frac{1}{16}$-inch scale.
	" "	20.	Section of house. $\frac{1}{8}$-inch scale.
			Details front porch, gable and window. $\frac{1}{2}$-inch scale.
	" "	21.	Details of windows, cornices, finials, crestings, etc.
Design No. 6.	*Plate* No.	22.	Perspective view Ornamental Cottage. To cost $5,200.
	" "	23.	Front elevation. $\frac{1}{8}$-inch scale.
			Section of house. $\frac{1}{16}$-inch scale.
	" "	24.	Side elevation. $\frac{1}{8}$-inch scale.
	" "	25.	First floor plan. $\frac{1}{8}$-inch scale.
	" "	26.	Second floor plan. " "
	" "	27.	Details front gable, dormer and porch, main gable, rear veranda, cresting and rail.
	" "	28.	Details of bay window, chimneys, etc.
Design No. 7.	*Plate* No.	29.	Front and side elevations of Ice House and fruit room. $\frac{1}{8}$-inch scale. To cost $1,500.
	" "	30.	Section and plan. $\frac{1}{8}$-inch scale.
	" "	31.	Details for all outside finish.
Design No. 8.	*Plate* No.	32.	Water-front and side elevation of ornamental boat and bath house. $\frac{1}{8}$ and $\frac{1}{16}$-inch scale. To cost $1,800.

Design No. 8.	*Plate* No.	33.	Section and plan. $\frac{3}{16}$-inch scale.
	" "	34.	Details of elaborate exterior finish.
Design No. 9.	*Plate* No.	35.	Perspective view of School House. To cost 6,000.
	" "	36.	Front elevation. $\frac{1}{8}$-inch scale.
			Ground plan of school-room. Second floor plan for public hall, religious services, etc. $\frac{1}{8}$-inch scale.
	" "	37.	Side elevation, $\frac{1}{2}$-inch to 1 foot.
	" "	38.	Section and details. to scale
	" "	39.	Details in full. "
Design No. 10.	*Plate* No,	40.	Perspective view of a Suburban City House, with French roof and tower. To cost $11,000.
	" "	41.	Front elevation. $\frac{1}{8}$-inch scale.
	" "	42.	Side elevation. " "
	" "	43.	Ground plan and chamber plan. $\frac{1}{8}$-inch scale
	" "	44.	Section. $\frac{1}{8}$-inch scale.
	" "	45.	Details in full. $\frac{1}{2}$-inch scale.
	" "	46.	Details in full. " "
			Carpenters' Specification in full.
			Masons' " "
			Plumbers' " "
Miscellaneous Details.	" "	47.	Examples of various styles of brackets to working scale.
	" "	48.	Examples of lattice-work. $\frac{1}{2}$-inch scale.
	" "	49.	Examples of chimneys in ornamental brick-work.
Design No. 11.	*Plate* No.	50.	Front and side elevations of Suburban Cottage. $\frac{1}{8}$-inch scale. To cost $3,200.
	" "	51.	First and second floor plans. $\frac{1}{8}$-inch scale.
	" "	52.	Details in full to scale.
Design No. 12.	*Plate* No.	53.	Front and side elevations of Cottage. To cost $4,100.

Design No. 12.	*Plate* No. 54.	First and second floor plans
	" " 55.	Details in full to scale.
Design No. 13.	*Plate* No. 56.	Front and side elevations of Cottage. ⅛-inch scale. To cost $4,700.
	" " 57.	First and second floor plans.
	" " 58.	Details in full to scale.
Design No. 14.	*Plate* No. 59.	Front and side elevations of Stable. To cost $2,500.
	" " 60.	Floor plan and details to scale.
Design No. 15.	*Plate* No. 61.	Front elevation of Cottage. To cost $6,000.
	" " 62.	Side elevation to scale.
	" " 63.	First floor plan.
	" " 64.	Second floor plan.
	" " 65.	Details to working scale.
	" " 66.	Details to working scale.
Design No. 16.	*Plate* No. 67.	Suburban City House for lot 50 feet front. To cost $6,000.
	" " 68.	First and second floor plans.
	" " 69.	Details to scale.
Design No. 17.	*Plate* No. 70.	Front and side elevations for City House for lot 50 feet front. French roof and three floor plans. To cost $5,000. Masons' specification in full. Carpenters' specification in full.
Design No. 18.	Plate No. 71.	Suburban City House, French roof, front and side elevations, and three floor plans. To cost $5,000.
Design No. 19.	*Plate* No. 72.	Front elevation of Ornamental Brick Villa, with French roof and tower. To cost $30,000. Designed for erection at Rutherfurd Heights on the Passaic River, N. J.

DESIGN No. 19.	*Plate* No.	73.	Side elevation.
	" "	74.	First floor plan.
	" "	75.	Second floor plan.
	" "	76 and 77.	Details in full, principally of elaborate brick work in cornices, window-dressings, etc.
DESIGN No. 20.	*Plate* No.	78.	Front elevation of Stone Lodge, Towers and Entrance, designed for erection at Rutherfurd Heights, N. J.
	" "	79.	Side elevation.
	" "	80.	Plans.
	" "	81.	Details of stone work.
MISCELLANEOUS DETAILS.	*Plate* No.	82.	Details of French roofs to working scale.
	" "	83.	" Framing of French roofs.
	" "	84.	" Dormer windows.
	" "	85.	" Bay windows.
	" "	86.	" Inside shutters and French windows.
	" "	87.	" Balconies.
	" "	88.	" Verandas and porches.
	" "	89.	" Stairs, newels, balusters, etc.
	" "	90.	" Sliding and hanging doors.
	" "	91.	" Windows, outside casings, etc.
	" "	92.	" Gable finish, and wood and iron cresting.
		93.	" Canopies, hoods, observatories, etc.
	" "	94.	" Base, architraves, etc.
	" "	95.	" Cornices and brackets.
	" "	96.	" Plain wooden mantels.
	" "	97.	" Plaster finish, cornices,
	" "	98.	" ceilings, etc.
	" "	99.	" Ornamental hard-wood mantels,
	" "	100.	" etc. etc. etc.

UNIVERSITY OF
LIBRARY
ILLINOIS.

PRICES OF BUILDING MATERIALS AND LABOR,

AT NEW YORK, JANUARY, 1869.

Estimates in this work are based on the prices here given, and cost of erection in other localities will be fixed by the local prices of materials.

Mason Work and Materials.

Stone wall, including all materials, laid dry, per foot 23 cents.
do do laid with mortar, - - do 23 do.
Excavation, per cubic yard, - - - 40 do.
Brick, per thousand, laid. Pale, $19 50 to $23 50. Hard burned, $21 to $25.
Cement, per barrel, $2 50 to $3.
Lime, do $1 75.
Hair, per bushel, 70 cents.
Lath and plastering, including all materials, 1 coat, per square yard, 40 cents.
do do do 2 coats, do 60 do.
do do do 3 coats, do 70 do.
Laths, per thousand, $3 50 to $4 50.

Prices for all the timber, covering, flooring and finishing lumber, per thousand feet, board measure.

Framing Timber.

Pine, $45. Sawed to order. Spruce, $25. Sawed to order.
Hemlock, $22 to $25.
Firring, 2 inches wide, 6 cents each.
Studding, 13 feet by 2×4 inches, 21 cents each. 3×4, 24 cents each.
Shingles, $8 to $10.

Roofing.

Hemlock, 1 inch thick, $24 per thousand.
Pine, 1¼ inches thick, matched, $45 per thousand.
Spruce, do do $35 do
Slating, per square of 100 feet, metal extra. 1st quality of slates, $15. 2d quality, $14.
Tinning, per square of 100 feet, $11 to $13.
Leaders, 4 inches calibre, per lineal foot, 30 cents.

Flooring.

Spruce, 5 inches wide, 1¼-inch thick, $35 per thousand, planed and matched.
Spruce, 10 inches wide, 1¼-inch thick, planed and matched, $35 per thousand,
White pine, 5 inches wide, as above, $45.
White pine, 10 inches wide, as above, $45.
Georgia pine, 3 to 5 inches wide, $60 to $80, 1¼-inch thick, planed and matched.
Hemlock, 1-inch thick, matched, $24.

Finishing Stock, Seasoned.

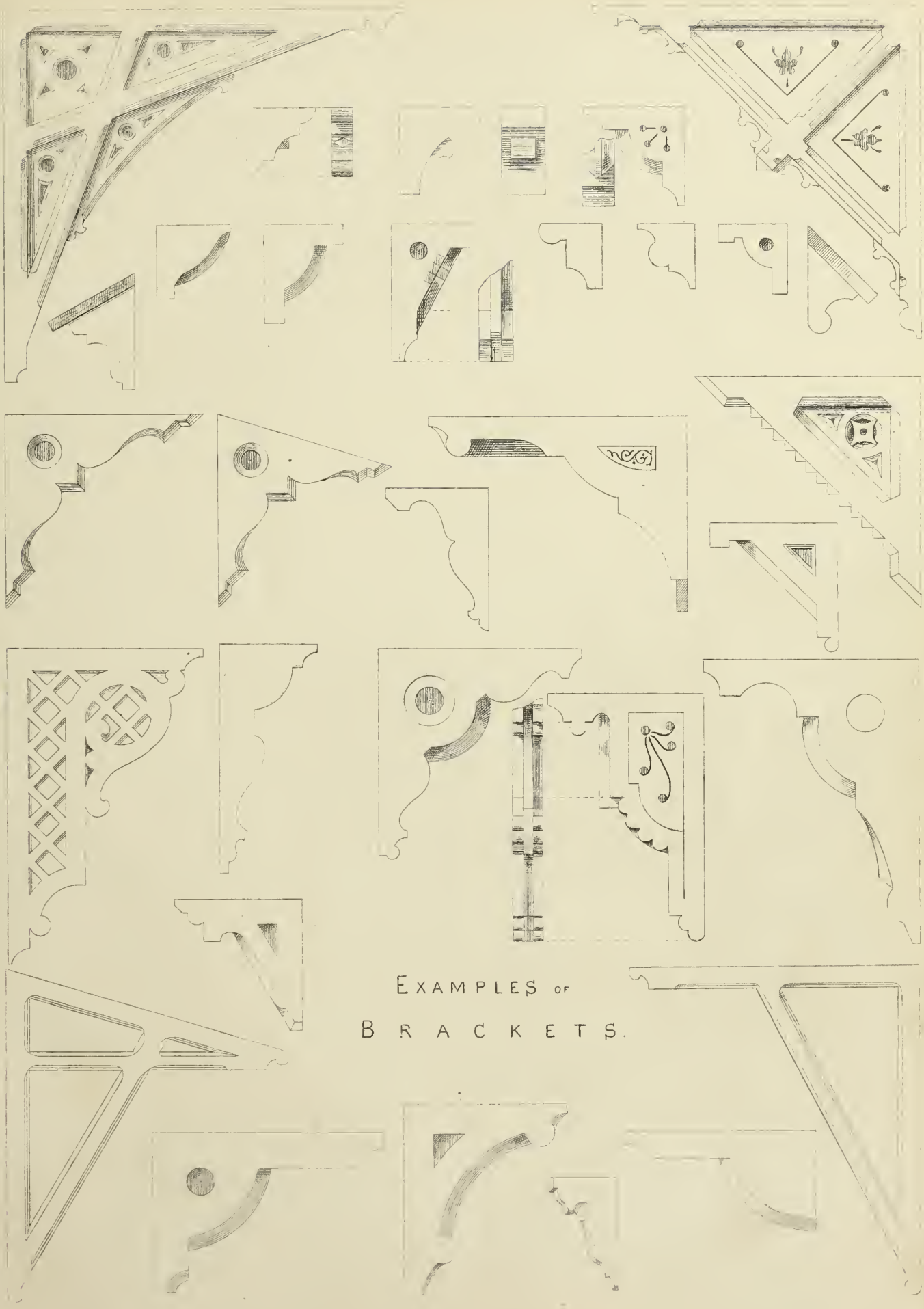
Clear white pine, $65 per thousand.
Second quality of clear pine, $40 to $50.

Hardware.

Nails, per cwt., $5 75.

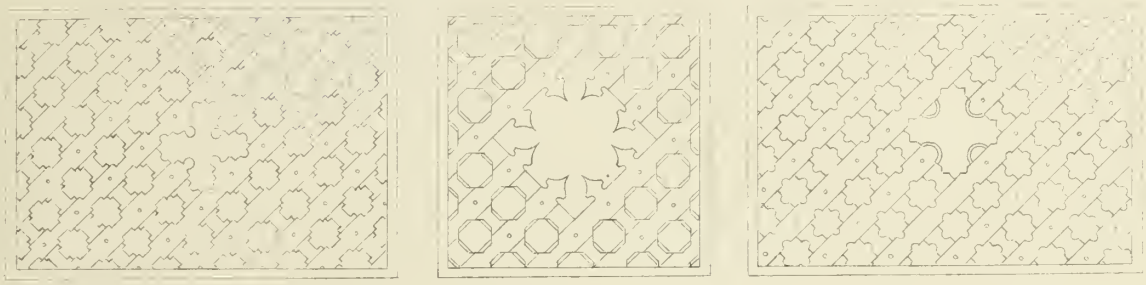
Labor Per Day.

Stone Mason,	$4 00.	Mason's Tender,	$3 00.	
Bricklayer,	5 00.	Carpenter,	3 75.	
Plasterer,	5 50.	Painter,	3 50.	Laborer, $2 00.



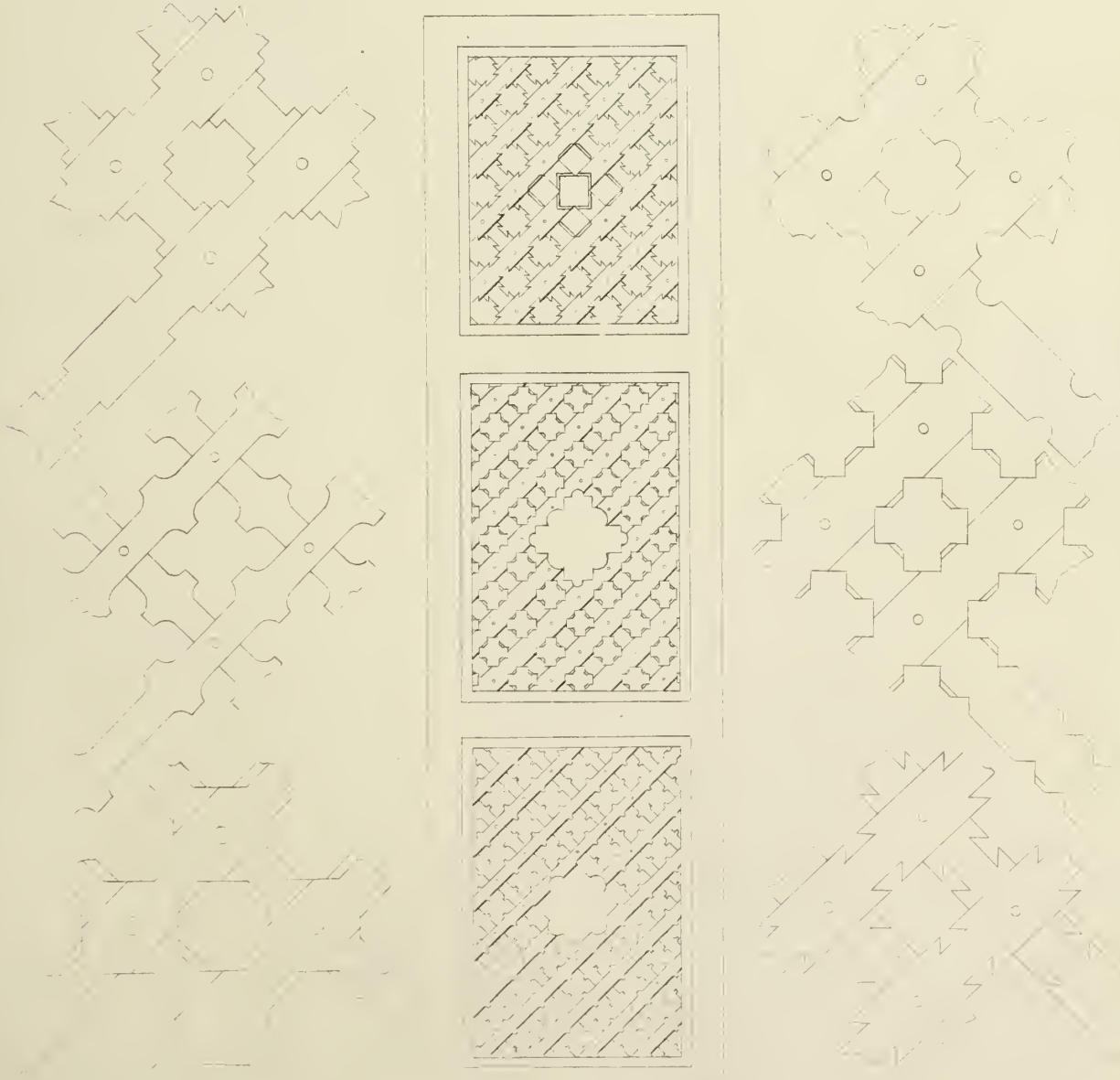
EXAMPLES OF

BRACKETS.

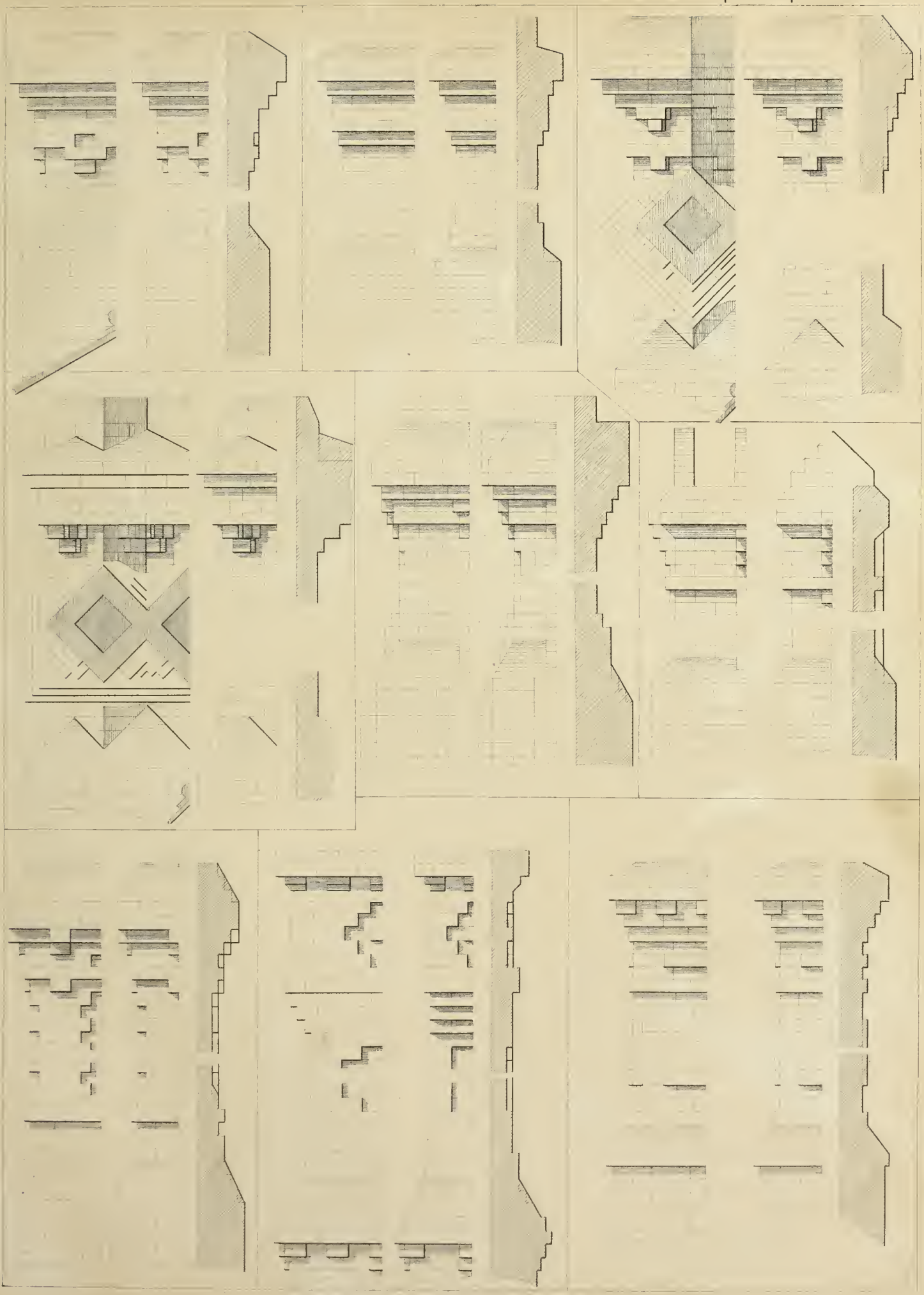


Examples of Lattice Work.

Scale. ½ Inch to One Foot.



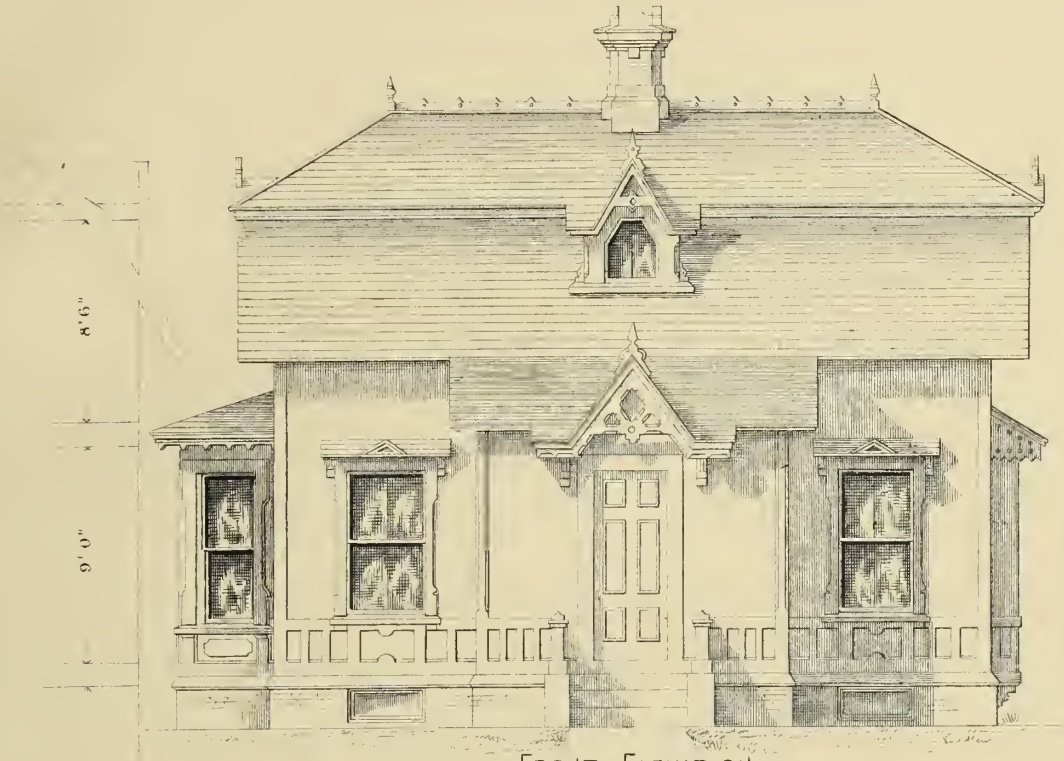
Scale. ½ Inch to One Foot



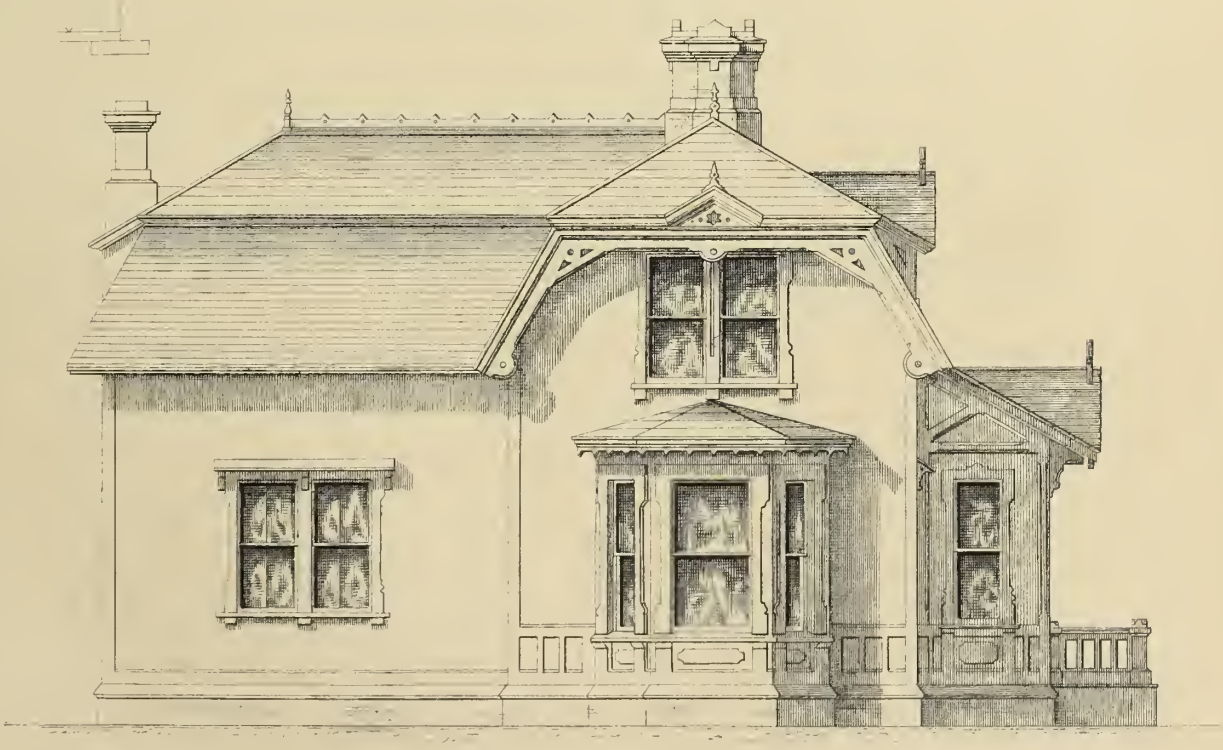
Scale. ½ Inch to One Foot

Design No. 11.

Plate No. 50.



FRONT ELEVATION.

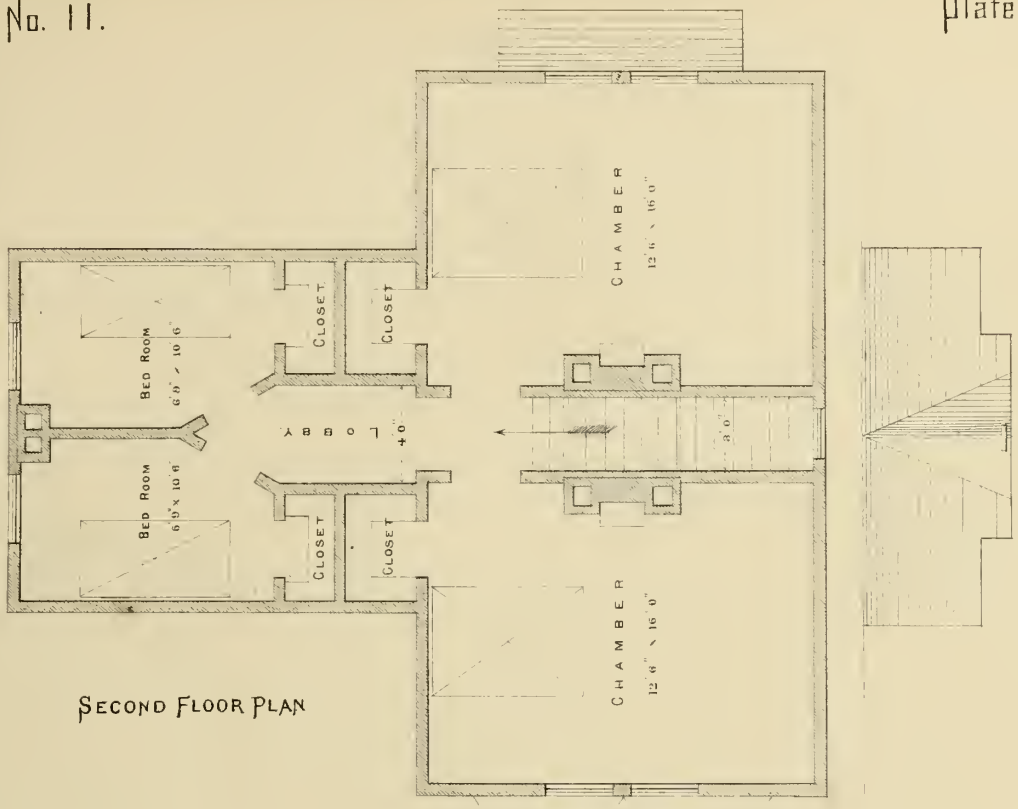


SIDE ELEVATION.

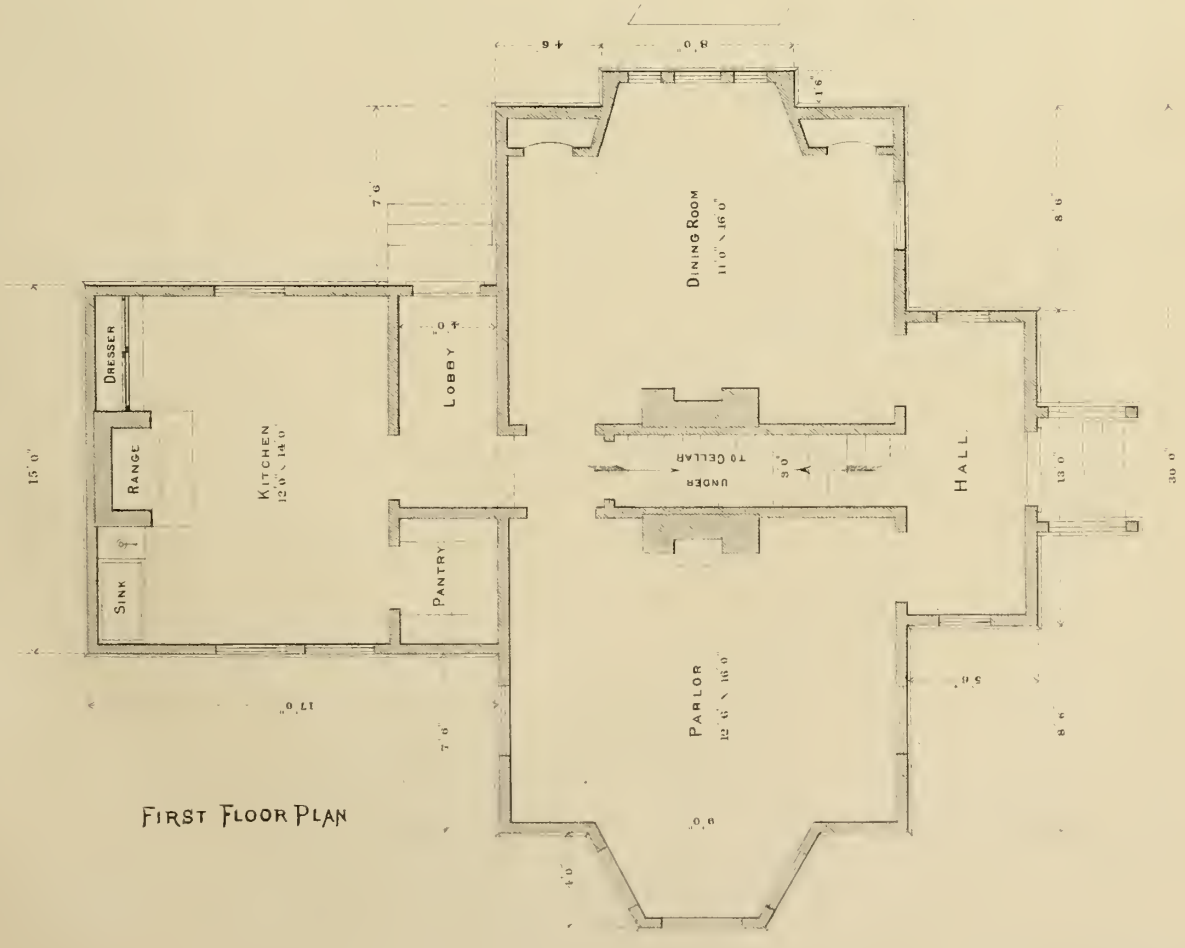
SCALE. 1/8 Inch to One Foot.

Design No. 11.

Plate No. 51.



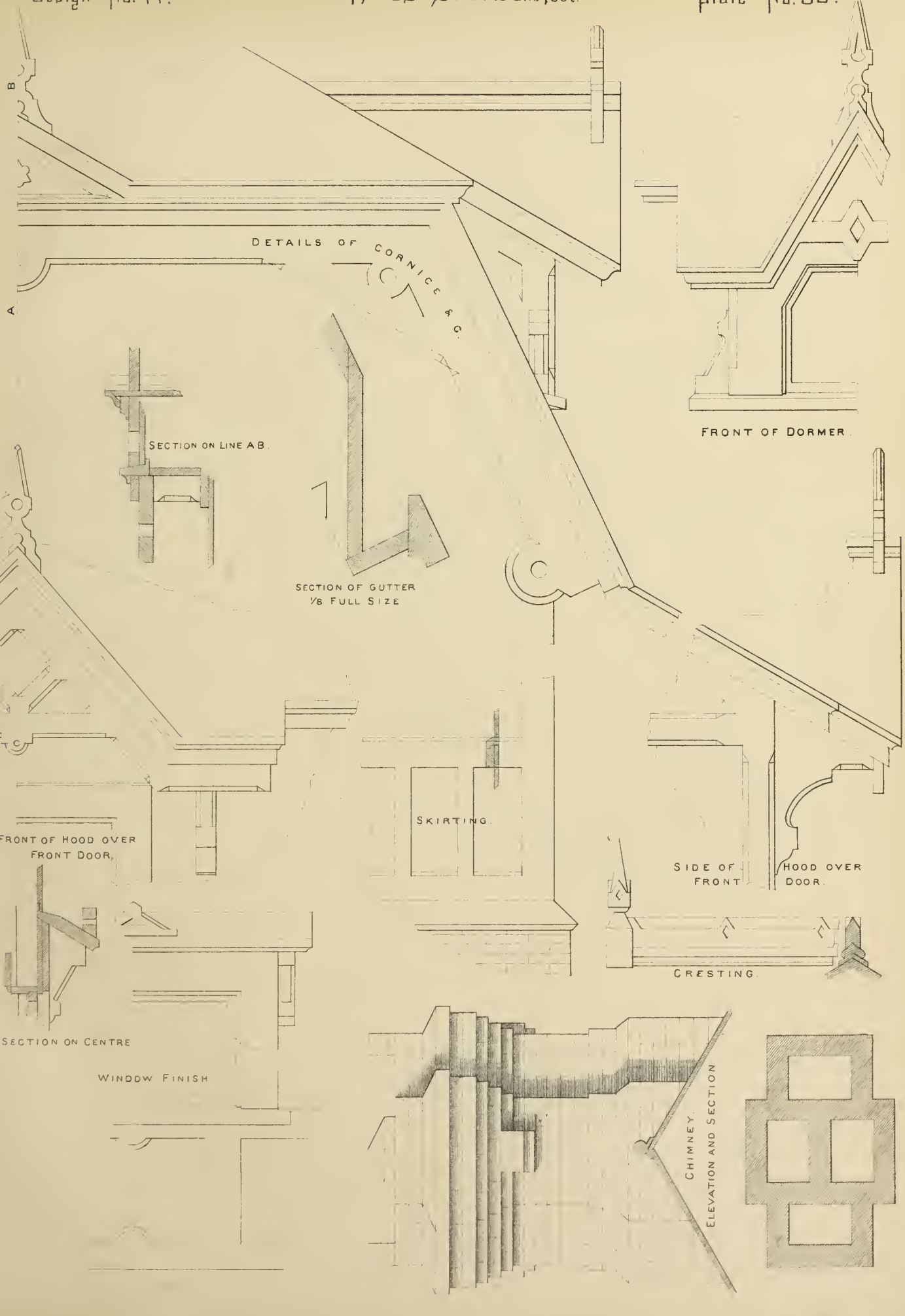
SECOND FLOOR PLAN



FIRST FLOOR PLAN

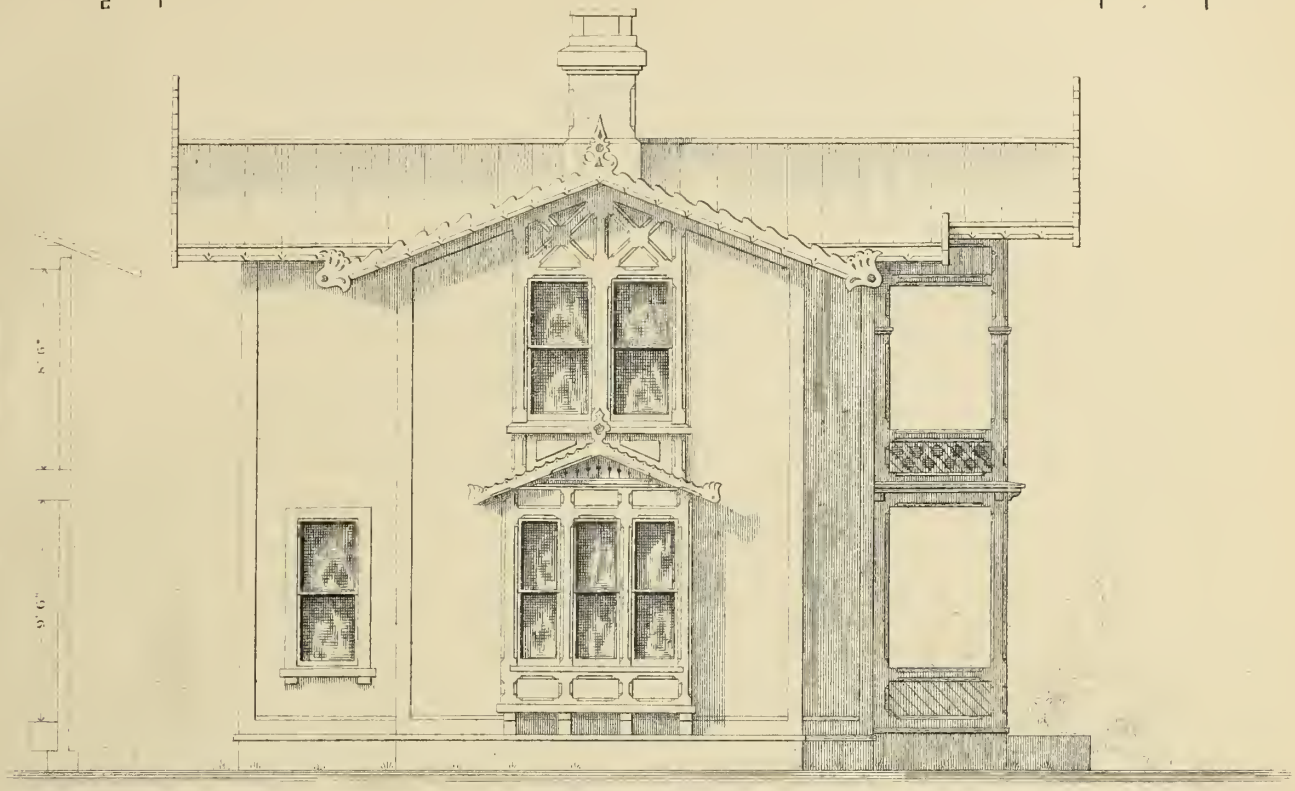
SCALE 1/8 Inch to One Foot

Design No. 11. DETAILS. ½ Inch to One Foot. Plate No. 52.



Design No. 12.

Plate No. 53.



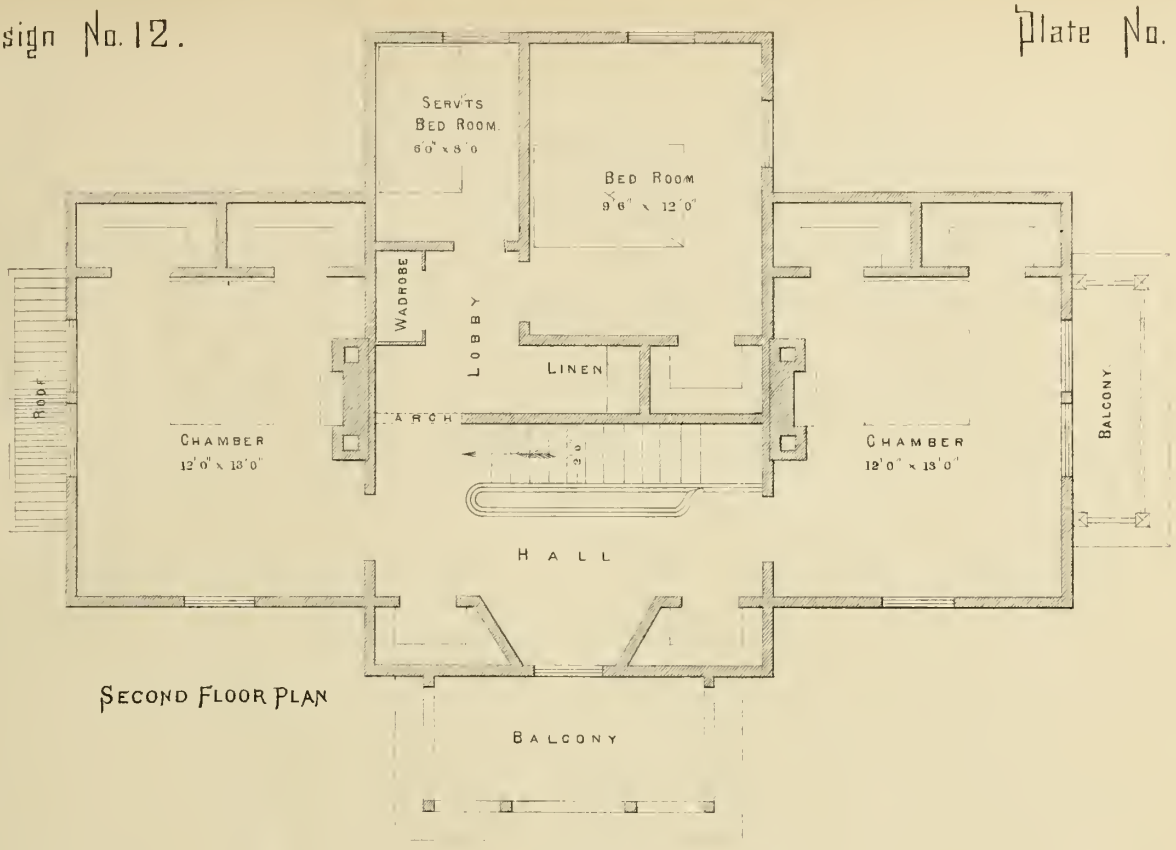
SIDE ELEVATION.

FRONT ELEVATION.

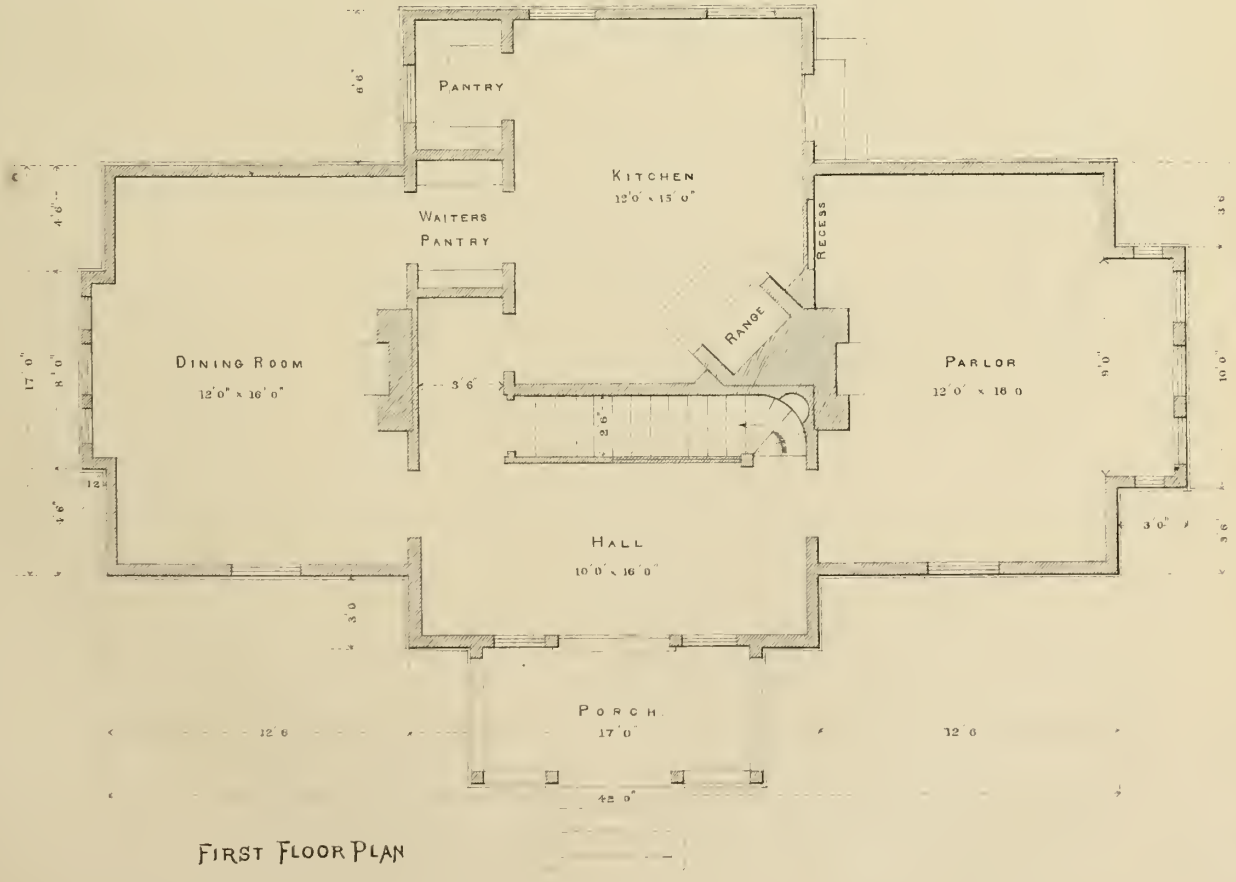
SCALE 1/8 Inch to One Foot

Design No. 12.

Plate No. 54.



SECOND FLOOR PLAN



FIRST FLOOR PLAN

SCALE 1/8 Inch to One Foot

Design No. 1.

Plate No. 1.

Design No. 1.

Plate No. 2.

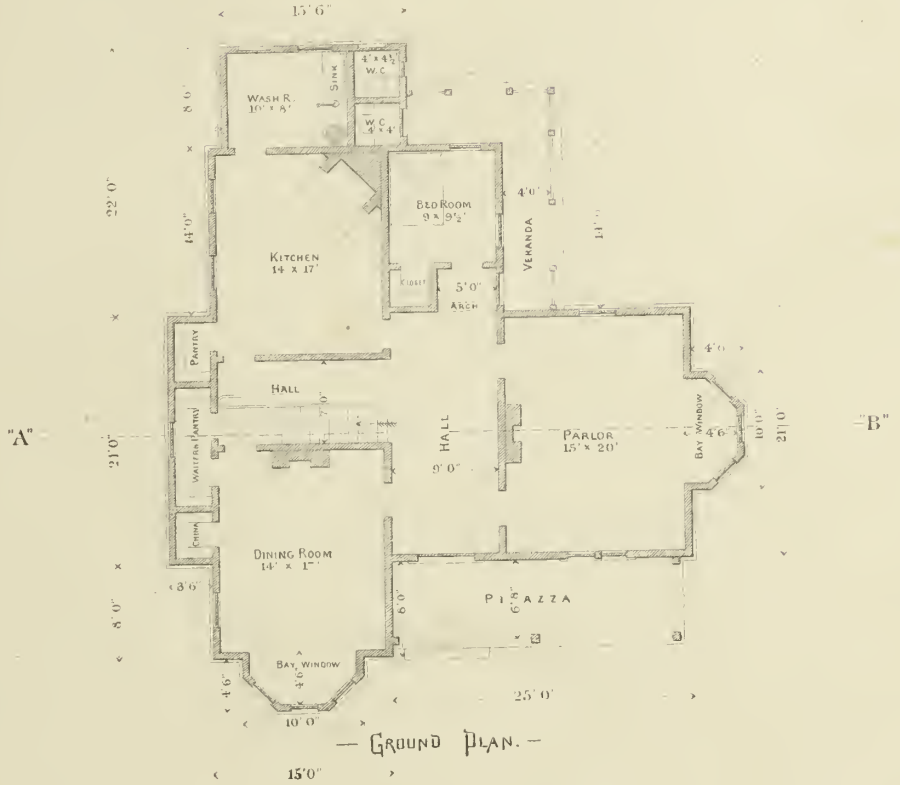
— FRONT ELEVATION. —

— SIDE ELEVATION. —

SCALE. 1/16 Inch to One Foot.

Design No. 1.

Plate No. 3.



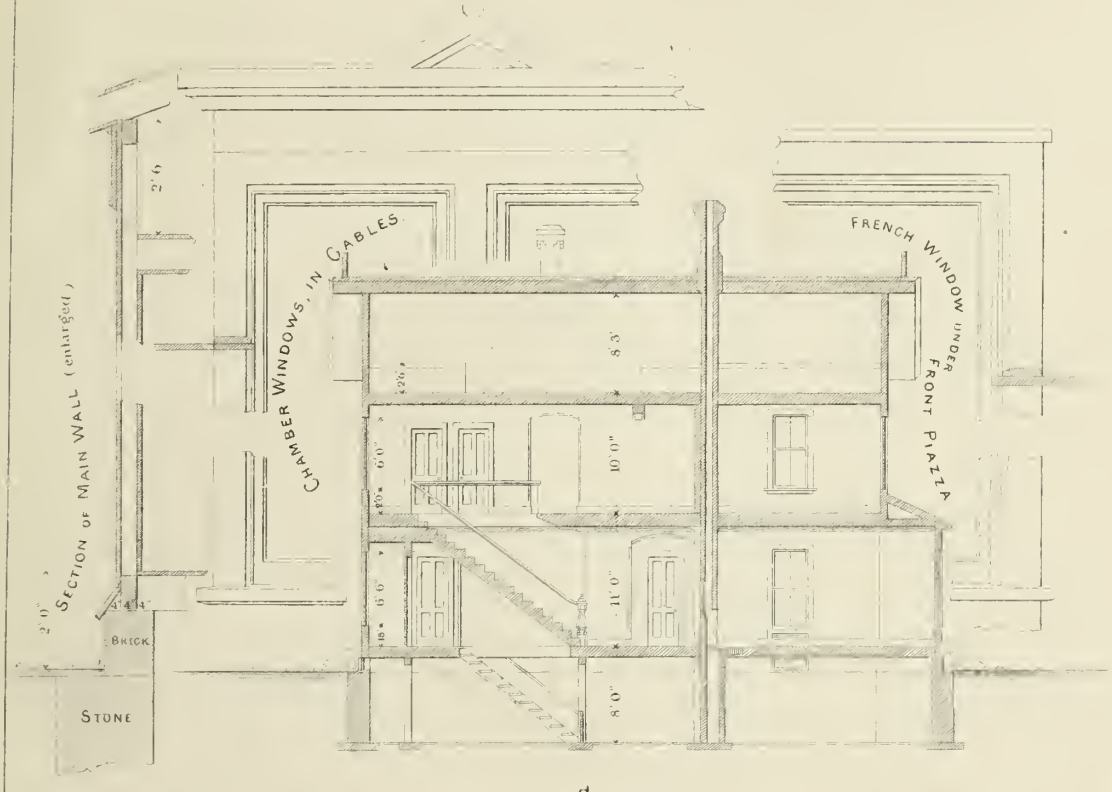
— GROUND PLAN. —

— CHAMBER PLAN. —

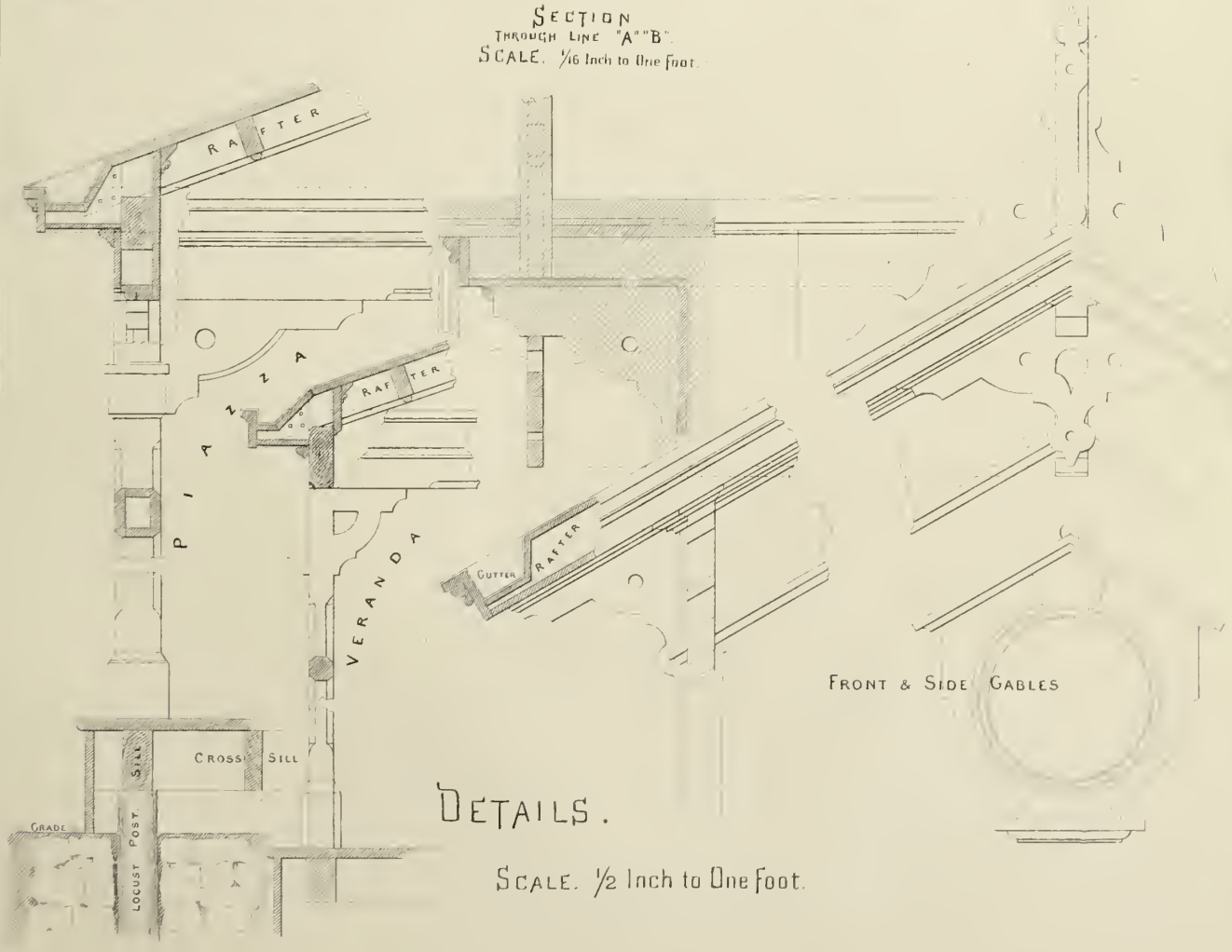
SCALE. 1/16 Inch to One Foot.

Design No. 1.

Plate No. 4.



SECTION
THROUGH LINE "A" "B"
SCALE. 1/16 Inch to One Foot.



DETAILS.

SCALE. 1/2 Inch to One Foot.

DESIGN No. 1.

CARPENTERS' SPECIFICATION.

DIMENSIONS, ETC. For Dimensions, heights of stories and internal arrangement of the building, see drawings.

The figures on the drawings to be followed in the construction in all cases in preference to measurement by the scale.

TIMBERING.

QUALITY OF TIMBER. Furnish all the Timber used in the construction, of good sound square-edged quality, free from any and every imperfection tending to impair its durability or strength, and as well seasoned as any convenient market will afford. The Sills, Posts, Floor Joist and Rafters, to be of Chesnut, Pine or Spruce, and the remaining framing timber of Hemlock, Pine or Spruce, at the option of the Contractor.

DIMENSIONS of the Timber, as follows:

Sills,	9×4 inches.
Angle Posts,	8×4 do
Intermediate do	6×4 do
Girts,	6×4 do
Plates, (main building,)	6×4 inches.
do (Wash Room Extension,)	4×4 inches.
Valley Rafters,	7×4 do
Common do	6×3 do (20 inches from centres.)

Carriage Beams and Headers, 4 inches thick.

Braces (long,)		4×4 inches.	
do (short,)		4×3 do	
Nailing Joist, (16 inches from centres.)		4×2 do	
Floor Joist.	1st, tier,		9×2 do
do	2d, do	16 inches from centres,	10×2 do
do	3d, do		8×2 do
Girder in Cellar,		5×5 do	

BRIDGING. Cut in one row of cross bridging in each tier of Beams.

FRAMING. Execute all the framing in a workmanlike and thoroughly substantial manner, and in strict accordance with the requirements of the design.

Double the Beams where the partitions bear on them.

Cut the lower end of the Rafters where projecting beyond the Plate, as required by the detail drawings.

Nail the Braces in bare-foot.

Support the Rafters, centrally, as hereinafter described under the head of "PARTITIONS AND FIRRING."

Support the Cellar Girders (under the floor-bearing partitions) on Locust posts, to average about 4 feet apart.

PIAZZA AND VERANDA FRAMING.	Outside Sills and Cross Sills (at each post),	6×4 inches.
	Floor Joist (2 feet from centres),	6×2 do
	Plates (Piazza), cased all around,	7×4 do
	do (Veranda),	8×3 do
	Rafters,	4×2 do

The Rafters planed three sides with $1\frac{1}{4}$-inch half round, nailed to bottom edge, as per details.

Support the floor upon locust posts set 3 feet in the ground.

EXTERIOR WORK.

ROOF PLANKING, ETC. Cover the Piazza and Veranda roofs, with $1\frac{1}{4}$-inch perfectly sound, narrow plank, planed side down (planed smooth)—*no beads.*

Cover all other roofs, with 1-inch tongued lumber, free from rot and holes.

Case up for and finish a 2×3-feet scuttle in the roof, and provide with

tongued plank cover, hinged with strong butts, and fastened with hook and staple.

Case up the ends of the rafters, and form the gutters as shown by the drawings. The Cornice soffit to be sheathed with narrow $\frac{7}{8}$-inch beaded sheathing.

TINNING. Cover all the roofs and line the gutters with charcoal roof tin I. C. brand, the sheets nailed, clenched and white leaded in the best manner and laid with the standing lock joint.

Extend the tin well into the joints of the brick chimneys, and where the Piazza and other roofs abut against the siding, at least 6 inches up behind the boards. Nail strips of tin on top of window casings—water-tight.

Furnish all the required leaders of sufficient size to convey the water from the gutters to the cistern and the tank in attic. Put up said leaders, with neat, ornamental, galvanized iron holdfasts.

FINIALS, ETC. Provide the ridges with 3-inch roll moulding, covering the same with Zinc, and finish with scroll-sawed finials at the gable terminations.

WEATHER BOARDING. Cover the exterior of the frame with first class clear clapboards, showing a uniform weathering and rebated in no case less than $\frac{3}{4}$ inch.

CORNER BOARDS. Furnish the angles with $5 \times 5 \times 1\frac{1}{4}$-inch returned corner boards.

WATER TABLE. Put on $1\frac{1}{2}$-inch canted water-table, rebating over the underpinning and tonguing under the siding, as per drawings.

CORNICES, ETC. Provide the eave and gable cornices with sawed brackets (4 inches thick), architrave and bed moulds, and scroll-sawed gable pendents, 2 inches thick.

DOOR AND WINDOW CASINGS. Case all the doors and windows on the outside with $1\frac{1}{4}$-inch casings, corniced as shown by the drawings, and provide the windows with 2-inch sills.

PIAZZA FINISH. Case up the piazza columns and furnish with caps and bases as shown. Cut in $2\frac{3}{4}$-inch brackets, form cornice, and mould all as per drawings.

Plane up and chamfer the small columns of veranda and provide with brackets, etc., as per details.

Lay the piazza and veranda floors with narrow, clear $1\frac{1}{4}$-inch tongued flooring, blind nailed, joints laid in white lead.

Firr out from the sills, and case underneath the floors down to the grade level as shown.

OUTSIDE STEPS. Build the outside steps and platforms as drawn, with $1\frac{1}{4}$-inch nosed treads, and 1-inch risers and facias. Provide with cove moulding underneath the nosings of front steps.

FLOORING.

Lay the attic floor with wide, perfectly sound 1-inch tongued lumber nailed twice to each bearing.

Lay all the remaining floors throughout, with narrow $1\frac{1}{4}$-inch tongued flooring, free from defects and blind nailed.

Flush off all the joints of the floors with the plane.

Cut in $2 \times \frac{1}{2}$-inch borders around all the hearths.

Furnish all the doors with hard wood saddles.

PARTITIONS AND FIRRING.

Set all the partitions that support beams, with 3×4-inch hemlock, 12 inches from centers, with 3×4-inch plates, (sound, straight and square edged,) and 3×4-inch sills. Form all the angles solid, and set all door studs double.

Set studs of 3×4-inch hemlock, with 4×4-inch plate, and 3×4-inch sills, 4 feet apart, to support rafters in attic.

BRIDGING. Bridge all the Partitions once in their height.

FIRRING. Cross-firr the 1st, and 2d, story ceilings, with 1-inch strip firring, and also firr the closet and bath room ceilings (under tank) down level, 8 feet high in the clear.

Firr off for the segmental arches across halls. Do any other firring required by the design.

Set grounds to all openings and leave them on.

STAIRS.

TO CELLAR. Build stairs to cellar, with $1\frac{1}{2}$-inch strings, and $1\frac{1}{4}$-inch treads, (no

risers) planed up and mortised together. Case up around the well-hole at the top to receive the plastering, and provide the steps with pine slat-rail.

To Scuttle. Build step-ladder reaching from attic floor to scuttle, with $1\frac{1}{4}$-inch lumber, neatly planed up and grooved together.

To Attic. Build the attic stairs, with $1\frac{1}{4}$-inch strings and treads, with enclosed soffit, and open risers. Enclose through servant's closet, from string to ceiling, with $\frac{7}{8}$-inch vertical beaded sheathing.

To Chambers. Principal flight. Build the principal flight of stairs from main to chamber hall, with $1\frac{1}{4}$-inch strings and treads, and 1-inch risers and facias; the steps front and back tongued. Return and mould the nosings, and mould the front string in a tasteful manner. Finish the wall string in correspondence with the base in the halls, and support the whole on 6×4-inch timbers rough bracketed to each tread. Surmount with $4\frac{1}{2} \times 3$-inch toad-back moulded rail, $1\frac{7}{8}$-inch fancy turned ballusters of selected pattern, and provide with 8-inch octagon-turned and veneered newel, at the start. The rail, ballusters and newel to be of the best sound seasoned Black Walnut, oiled two coats, and well rubbed down at the completion.

WINDOWS AND GLASS.

Frames. Make the mullion window frame in parlor front, with box-head, and all other frames throughout, (above the cellar,) the usual box frames for double hanging the sash, with 2-inch best pulleys, iron weights and hemp cord.

Make the Cellar frames with 2-inch plank rebated for the sash to be hinged and opened upwards; the sash $1\frac{1}{2}$-inch thick.

Sashes. Make the attic frames and sash in the same manner; the sash to be hinged to open horizontally. Fasten these sash shut, with bolts, and open, with buttons.

Make the sash in wash room, and the small sashes in water closet $1\frac{1}{2}$-inch thick, and all other window sash throughout, $1\frac{3}{4}$-inch thick.

Glass. Glaze all the windows throughout, with the first quality of French sheet glass.

Glaze the upper panels of main entrance doors with the best quality of French polished plate glass, and the same panels in the rear hall door opening on veranda, with enameled glass of selected pattern.

DOORS.

THICKNESS. Make the front doors 2 inches thick, as per elevation and working drawings.

The 1st story principal room doors, $1\frac{3}{4}$ inch thick, and all other doors throughout, $1\frac{1}{2}$ inch thick.

PANELS. Make all the doors four panels each, and double face with mouldings.

HEIGHT. Make the parlor doors, 7 feet 9 inches in height, the remaining 1st story room doors, 7 feet 4 inches high, and all other doors throughout, 7 feet in height.

The width of the doors to vary as their several situations require, and as indicated on the plans.

HINGING. Hinge all the doors on the best quality of iron butts, of the size respectively required.

BOLTS. Put two wrought iron tail bolts, (long and short,) on the standing front, folding door, and two 8-inch malleable iron bolts on each other outside door.

LOCKS. Put a $6\frac{1}{2}$-inch mortise lock on the front door, with night latch and keys and bronzed medallion furniture.

5-inch mortise locks on the 1st and 2d stories, principal room doors, with bronzed medallion furniture in the main hall parlor and dining room, and white porcelain furniture on the remainder.

Put 5-inch rim locks on all other doors throughout with dark mineral furniture.

All the locks to be of the best and most approved manufacture.

SASH FASTENINGS. Fasten all the sash throughout when not otherwise specified with the most approved sash fastenings, corresponding in style with the lock furniture of the rooms in which they are situated.

BELLS.

Put up with copper wire in zinc tubes in a thorough workmanlike manner, the following gong bells. The pulls respectively to correspond in style of finish with the neighboring door furniture.

One pull from front door to kitchen.

do	do	dining room	do
do	do	library	do
do	do	parlor	do
do	do	2d story hall	do
do	do	principal chamber to servants room in attic.	

INSIDE FINISH.

TRIMMINGS, BASE, ETC. Trim all the doors with 1¼-inch jambs, and all the doors and windows throughout the first and chamber stories of the main building, with neat moulded architraves, 7 inches wide below, and 5 inches above. Trim throughout the kitchen wing, and in all closets, with plain chamfered architraves 4½ inches wide.

All the windows in principal rooms, to be trimmed down to the floors with framed, moulded and paneled backs, and elsewhere throughout on nosing sills with moulded aprons.

Put down 8-inch plain moulded base in the principal rooms of 1st story, 6½-inch do. in chambers, and 6-inch plain chamfered plinth elsewhere throughout (where not wainscoted). All the base to tongue down ⅜-inch into a moulded carpet strip, rebated to receive it.

WAINSCOT. Wainscot the walls of the kitchen and wash room, 3 feet in height above the floor, with ⅞-inch clear, tongued and beaded sheathing, 4-inch wide, and neatly cap.

BATH ROOM. Case up the bath-tub and water-closet with Black Walnut, and tongue down a plain beveled surbase over against the wall. Hinge both flap and seat of water-closet, with brass butts. Case up the wash-basin in a similar manner, enclosed below with paneled door, hinged on brass butts and fastened with snap-lock.

Build raised platform 8 inches in height, on which to set bath tub and water-closet, as indicated on the plans.

TANK. Construct a tank in attic, over the bath room, 6 feet 6 inches long, by 5 feet 4 inches wide, and 3 feet deep, framed in a substantial manner with

3×4-inch and 2×4-inch joist, lined with 1¼-inch tongued plank. The whole to be suspended upon 14×4-inch beams bearing upon main partition and intertie, and framed with headers of the same size over the partitions. The bottom of the tank to be firred and plastered in the bath room, finishing 7 feet 6 inches in the clear above the floor.

SHELVES, HOOKS, ETC. Shelve the closets and pantries as indicated on the plans and otherwise required, with clear lumber planed smooth, and put up the required number of double iron clothes-hooks. Both hooks and shelves to be fastened on neatly moulded cleets mitred at the angles.

Fit up each end of the waiters' pantry, with counter shelf, and two dovetailed drawers, as indicated on the drawing. Also provide kitchen pantry with two dovetailed drawers.

WOODEN MANTELS. Put up in two of the chambers, neat wooden mantels of the design selected by the owner from the examples herein given. The lumber used to be perfectly clear.

CUTTING, ETC. Do any necessary cutting, mending, and repairing, required by the work of gasfitters, plumbers, bell-hangers, and others.

OUTSIDE BLINDS.

Furnish plain outside blinds for all windows (except cellar and attic); hinged on best blind hinges and fastened with approved patent fastenings

PAINTING.

Properly stop with oil putty, all nail holes and other imperfections in the work to be painted, and size all exposed knots, etc.

Paint all the wood work of the building outside and inside, (exclusive of the inside floors, and inclusive of the piazza floors and outside steps, and the cutting in of the stairs) two good coats of the best English white lead and oil paint. Also, paint the kitchen fire-place, the chimney shafts, and the brick underpinning where exposed to view, two coats.

Thoroughly cleanse the tin roofs and gutters, and paint two coats of best metallic roof paint.

Grain the wood-work in kitchen and wash room, in imitation of light oak.

Finish all the work in color, as directed by the owner, or his appointed superintendent.

CLEANSING. Remove all waste material and rubbish accumulated by the carpenter, at the completion, and leave the building and premises thoroughly clean; scrub the floors, and wash the windows.

MATERIALS, ETC.

LUMBER. Furnish all the lumber of white pine where not otherwise specified, of good sound quality, and as well seasoned as the market affords. All the sashes, panel work and interior trimmings to be of clear lumber.

The entire work to be completely finished in the best manner of the style specified.

Any work exhibited by the drawings to be executed by the contractor, though unmentioned herein.

MASONS' SPECIFICATION.

DESIGN No. 1.

EXCAVATING.

Do all the necessary excavating for the cellar, dwarf wall under laundry extension, cistern, cesspool and sink. Grade the excavated earth around the building as may be directed.

Lay aside the top soil and sods at the commencement, and replace over the graded surface at the completion.

WALLING.

STONE WALLS, ETC. Build the cellar and foundation walls of good building stone, of flat bed and firm build, laid in hydraulic ground lime, and sharp, clean sand mortar. Lay down substantial flat-stone foundations under the chimneys, and girder posts in the cellar.

Lay down a flat stone not less than 18 inches diameter under the piazza locust under-posts, bedded below the action of the frost. Fill in around the posts up to the grade level with small broken stone packed in dry.

Lay down footings under all the walls of the building, of flat stones not less than 2 feet long and 6 inches thick, bedded cross-wise of the walls on the natural undisturbed earth. Build the walls from thence up to the grade in height, by and full to a line on the inner face, and flush and point at the completion. These walls to average 20 inches in thickness—the greater breadth at the base.

PRIVY-SINK. Stone up the privy sink, 8 feet deep, of the size shown on the plans.

and line with 4 inches brick work. Flush the inner face smoothly with hydraulic cement, and connect with cesspool through earthen drain pipe properly trapped.

CESSPOOL, ETC. Stone up a cesspool 3 feet in diameter and 8 feet deep, covered with a 3-inch rough flag, provided with man-hole, etc., complete.

Make the necessary connections with the cistern to receive the overflow, through earthen pipe of the required size.

BRICK-WORK. Build the wall from the top of the cellar stone walls, 16 inches in height, and 12 inches thick. These walls to be flush with the stone walls on which they bear, on the inner face, and the joints flushed full and rubbed for painting on the exterior, where exposed to view.

Build the brick walls under sills of laundry extension the same height and 8 inches thick; these walls to bear upon the centre of the dwarf-foundation walls below. Finish the exterior face as above described.

CHIMNEYS. Build the chimneys, ash pits, etc., as per plan. Build a ventilating flue in the kitchen, and provide for registers in the kitchen and bath room. Strike the joints and smoothly parget all the flues. Top out above the roof as per drawings, with selected brick cut where required and prepared for painting. Face the throat, jambs and breast, of the kitchen fire-place, with selected brick prepared for painting.

Turn trimmer arches against all the hearths, and furnish the required rough brick, mortar and plaster for setting the mantels, hearths and range.

CISTERN. Build a cistern where directed, 10 feet diameter and 10 feet deep, with 8-inch walls, 4-inch arch and neck, and 5-inch bottom, (two courses on the flat,) the whole laid in and smoothly coated on the inside with cement. Lay a strong rough flag over man-hole in the neck. Connect the cistern with house leaders, through 5-inch vitrified pipe laid in below the action of the frost.

All the above mentioned brick work to be built with the best quality of hard-burnt common brick, laid in strong mortar formed with the usual materials for first class work.

NOGGING. Fill in the entire frame of the building below the attic floor, with pale brick, laid on edge in mortar; all joints flushed full.

BLUE-STONE.

KITCHEN HEARTH. Furnish a rubbed blue stone kitchen hearth, of the size shown on the plans, and not less than 4 inches thick; also, provide a lintel for the fire-place, 5 feet 6 inches long, 8 inches rise, and 4 inches bed.

WINDOW SILLS. Provide the cellar windows, with 4-inch blue stone axed sills, of 5 inches bed and the required length.

FLAGS. Provide smoothly dressed flags, 2 feet wide by the required length, at the foot of the outside entrance steps.

PLASTERING.

Lath the cellar ceiling, and the walls and ceilings of the 1st and 2nd stories, with the best quality of dry seasoned lath, securely nailed to each stud, and joints broke every sixth lath.

Plaster the cellar ceiling one good coat, and the remaining walls and ceilings, where lathed, three coats—scratch, brown and hard-finish—with the very best materials in use.

CORNICES. Run neat moulded cornices of about 5 inches rise, and 8 inches projection, in the parlor, main hall and dining room.

CENTRES. Put up small enriched centres of such pattern as the owner may select.

ANGLE BEADS. Plaster small return beads on all exposed plaster angles, splayed off at the top and bottom.

ARCHES. Finish the segmental arches in the main and chamber halls, with 2-inch Boutelle moulding on the soffit angles as shown by the detail drawings.

Excepting behind the kitchen wainscot, the plastering in all cases to extend up to the grounds and down to the floors.

REMOVAL OF RUBBISH, ETC. The entire Masons' work to be delivered up in thoroughly good order and repair at the completion, and all of the Masons' waste material and rubbish accumulated during the progress of the work, to be removed from the premises, or disposed about them, at the option of the owner.

DESIGN No. 1.

PLUMBERS' SPECIFICATION.

Specification of the Plumbing Work and materials required in erecting House per Design No. 1.

IRON SOIL PIPE. Furnish and connect with privy sink a 4-inch cast-iron soil pipe, and extend the same up and behind the kitchen flue a sufficient height above the 2d story floor to receive the overflow from the tank. Connect with water-closet in bath-room through 4-inch lead soil pipe, weighing not less than 6 pounds to the foot, properly trapped. Put up the iron pipe with iron holdfasts, and caulk all the joints water-tight with lead.

SUPPLY PIPE. Furnish a $\frac{3}{4}$-inch B lead supply pipe and connect with the attic tank, and extend it down and connect it with the boiler in kitchen.

BOILER. Furnish and set on iron stand in wash-room where shown on the plans, a 40-gallon copper boiler, round head and riveted, well hooked, soldered, and smoothly planished. Connect the same with the brass pipes of the water-back of the range by 1-inch copper pipes. Provide with circulation pipe, etc., complete.

SINK. Furnish and put up a 36 in. × 20 in. × 6 in. cast-iron sink, with iron legs, and supply it with hot and cold water, through $\frac{5}{8}$-inch B supply pipes, $\frac{5}{8}$-inch finished flange bibb cocks, 3-inch waste pipes and traps, and brass trap screw. Provide a copper branch and stop-cock below the sink for emptying the boiler.

WASH-TRAYS. Supply the two wash-trays in wash-room with hot and cold water through $\frac{5}{8}$-inch strong B lead pipes, and $\frac{5}{8}$-inch finished brass flange and thimble tray drawer cocks. Provide with strainers, plugs and chains, and overflow from one tray to connect with waste-pipe. Furnish 3-inch main lead waste-pipe, weighing 5 pounds per lineal foot, trapped and connected with soil pipe, with 2-inch branch wastes connected with each tray. Trays to be lined with zinc.

FURNACE. Supply the furnace with cold water through $\frac{1}{2}$-inch strong B lead pipe, a 24 in. × 24 in. × 12in. cistern lined with $4\frac{1}{2}$-pound lead, a 4-inch copper ball and ball-cock, and connect with the evaporator by a copper pipe.

WATER-CLOSET. Furnish and set in 2d story, as per plans, a best constructed pan closet, with white marble pattern basin, Wedgewood ware, enameled receiver and silver plated cup and handle. Provide with 24 in. × 14 in. × 14 inch cistern lined with 4-pound lead, and furnished with box, valve wire, 5-inch copper ball and ball-cock, etc., complete. Make the closet trap of 6-pound sheet lead.

WASH-BASIN. Furnish and put in complete, in the 2d story, as per plans, a $14\frac{1}{2}$-inch very best marble pattern Wedgewood-ware basin, supplied with hot and cold water, through $\frac{1}{2}$-inch strong B lead pipe, No. 3 silver-plated upright basin cocks, with the requisite strainers, plug, chain and overflow, plated as above. Provide with white Italian veined marble top and base; the base 12 inches high; countersink the top, and mould the edge of it and the base; furnish with $\frac{1}{2}$-inch overflow pipe and $2\frac{1}{2}$-inch trapped lead waste.

BATH. Furnish and fit up in 2d story, as per plans, one 18-oz. sheet copper, tinned and planished bath, supplied with hot and cold water, through $\frac{5}{8}$-inch strong B lead pipe, $\frac{5}{8}$-inch silver-plated flange cocks, and waste through $1\frac{1}{2}$-inch lead waste pipe, properly trapped, and supplied with silver-plated plug and chain. Provide with $\frac{1}{2}$-inch overflow pipe and silver-plated strainer. Furnish and fit up over the tub an 8-inch copper rose shower, of the best pattern, tinned and planished. Supply with cold water through $\frac{1}{2}$-inch strong B lead pipe and silver-plated stop-cock.

STOP-COCKS. Provide and put in all necessary stop-cocks as required and directed. Properly trap and grade all the pipes.

ATTIC TANK. Line the attic tank 5½ ft. × 6 ft. × 3 feet deep throughout with 4½-pound sheet lead, well spotted, tacked and soldered. Furnish with 3½-inch lead overflow pipe, and connect with soil pipe to privy sink.

PUMP. Furnish and fit up by the side of sink in wash-room, one of "Carr's" $35 combination lift and force pumps. Connect the same with cistern and well through 1¼-inch strong B lead pipes, provided with 2¼-inch stop-cocks, one on each pipe placed beneath the pump. Connect the pump with attic tank through 1-inch strong B lead pipe.

RANGE. Furnish and set in kitchen fire-place one of the most approved Cooking Ranges of the largest size the space assigned will admit, and of the kind selected by the owner. Fit up with all the requisite appliances, water-back, etc., and complete the present provision for discharging the ashes into the pit below.

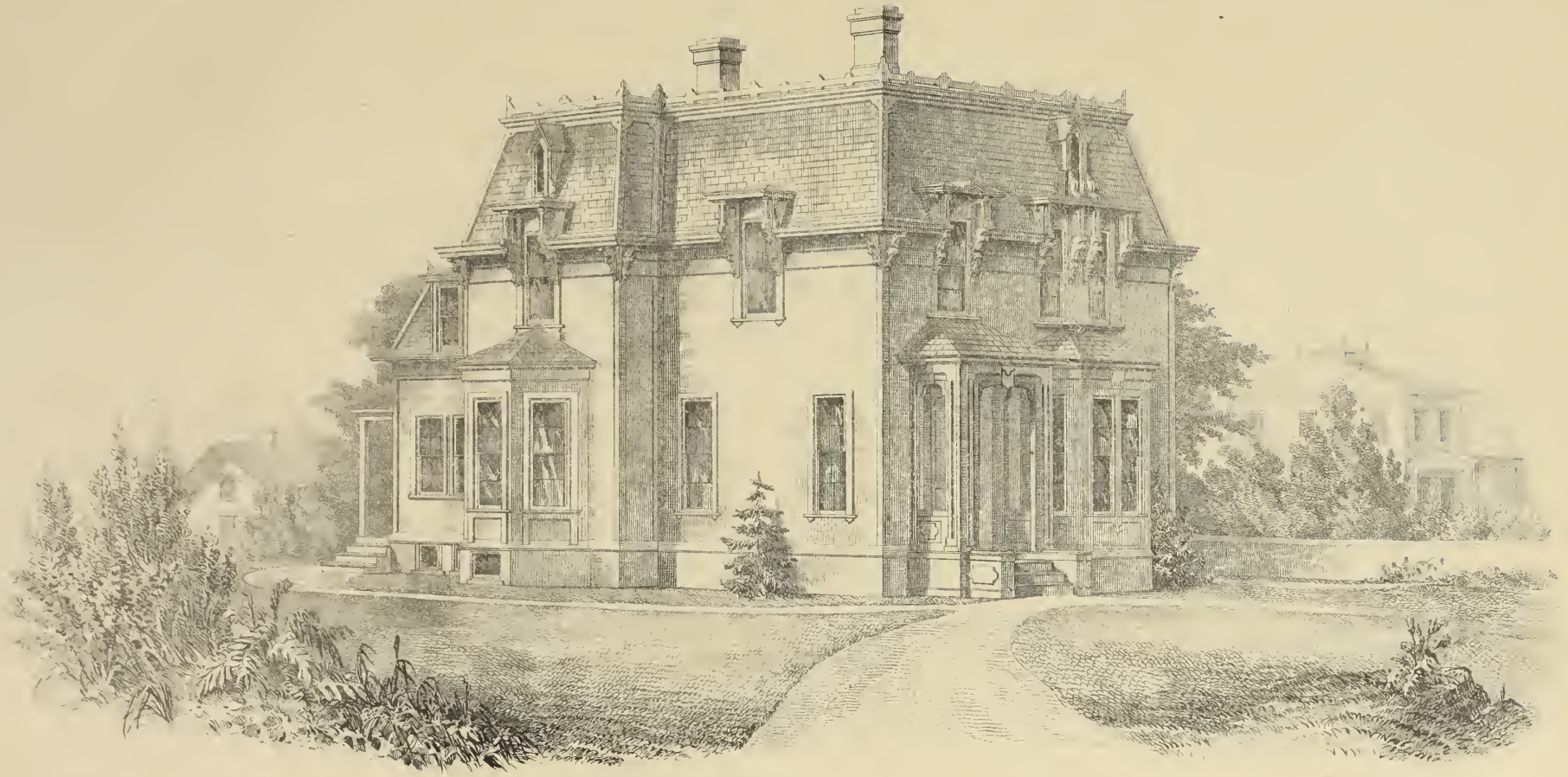
WORKMANSHIP, ETC. All the work to be executed in the best and most thorough workmanlike manner, and warranted perfect and substantial in operation at the completion. All the plated work to be of the best, first-class description, and the pipes and metal used to be *fully up to the standard called for.* This will be *rigidly enforced* by the Superintending Architect.

Any other required pipes or other work or materials, to supply, empty and connect the several works, to be furnished.

Upon a due and sufficient performance of the work a certificate will be furnished by the Architect.

Design No. 2.

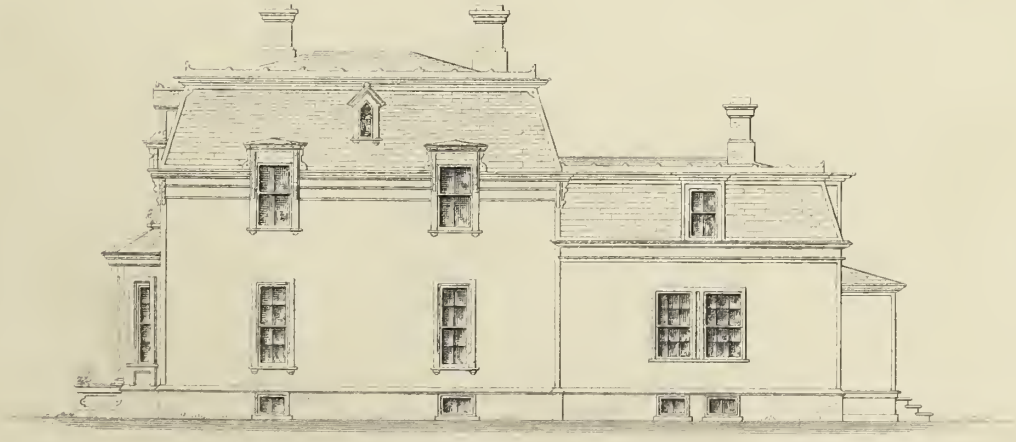
Plate No. 5.



Design No. 2.

Plate No. 6

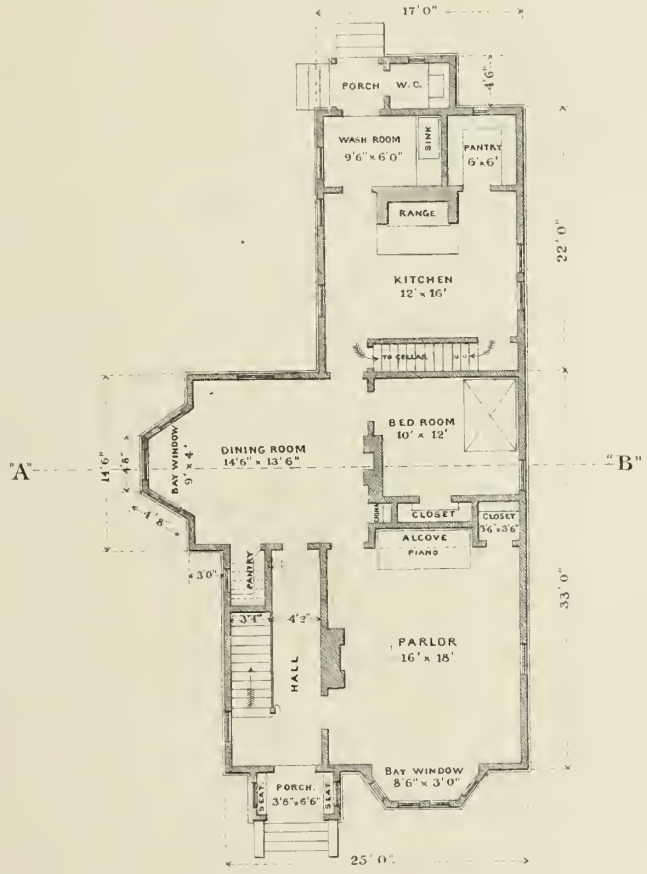
FRONT ELEVATION



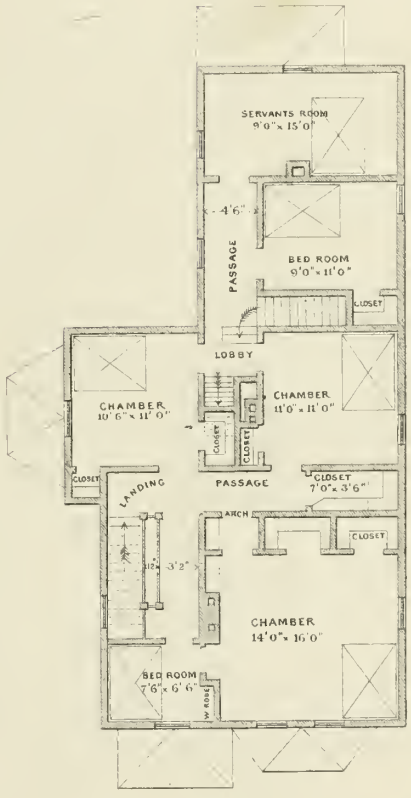
SIDE ELEVATION.

Design No. 2.

Plate No. 7.



— Ground Floor Plan —

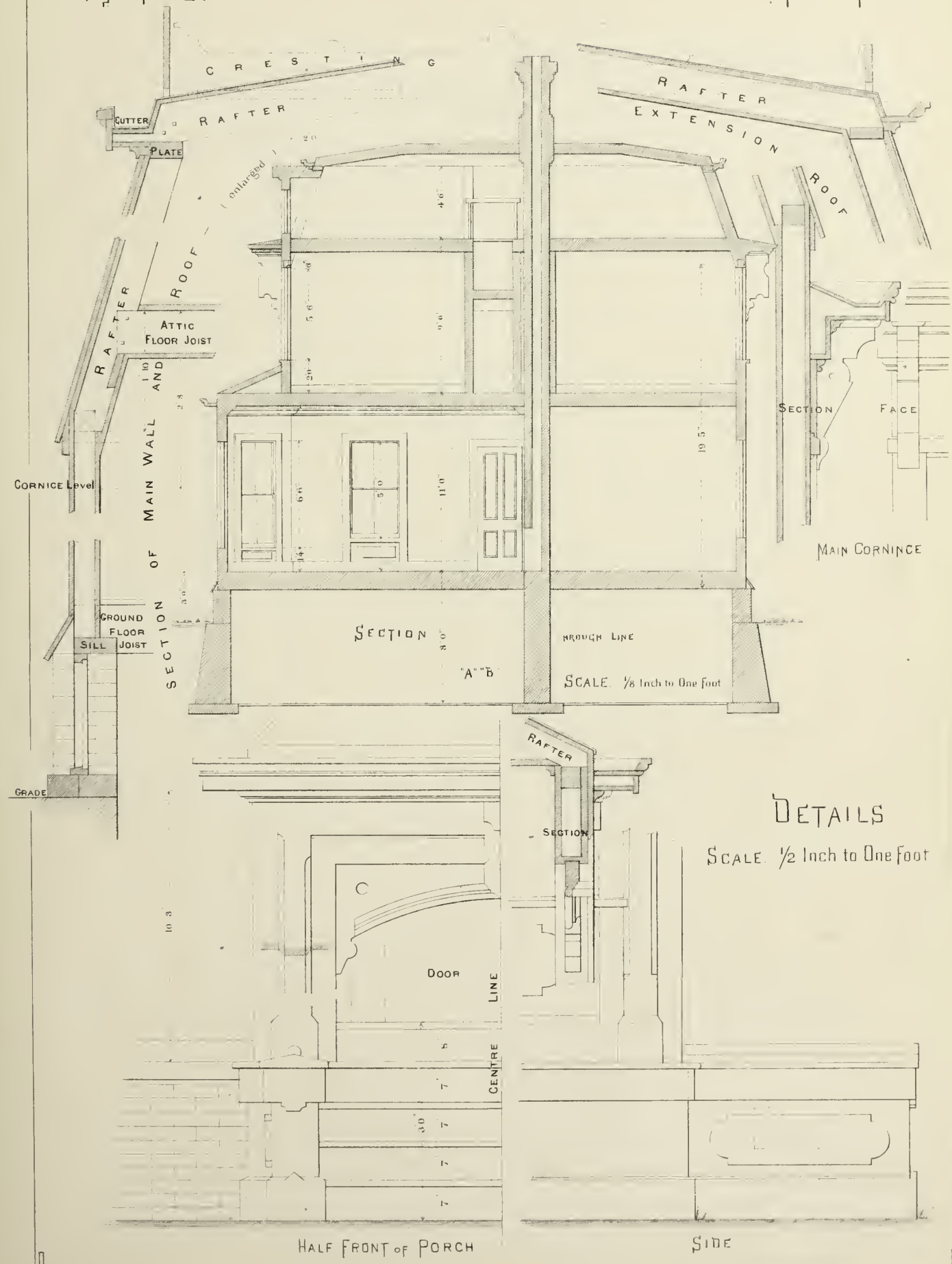


— Chamber Plan. —

— Side Elevation —

Design No. 2.

Plate No. 8.

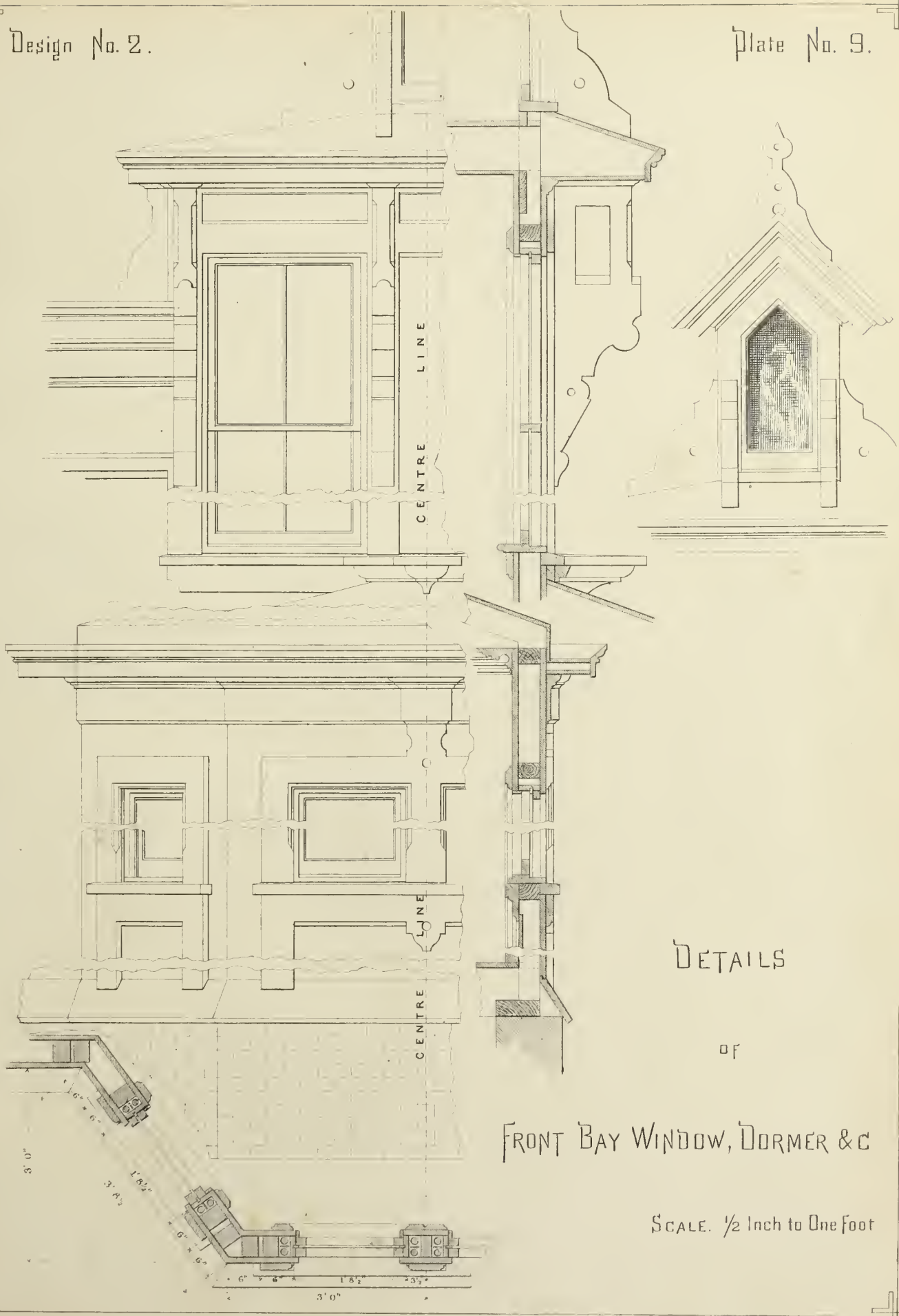


DETAILS

SCALE. 1/2 Inch to One Foot

Design No. 2.

Plate No. 9.



Details

of

Front Bay Window, Dormer &c

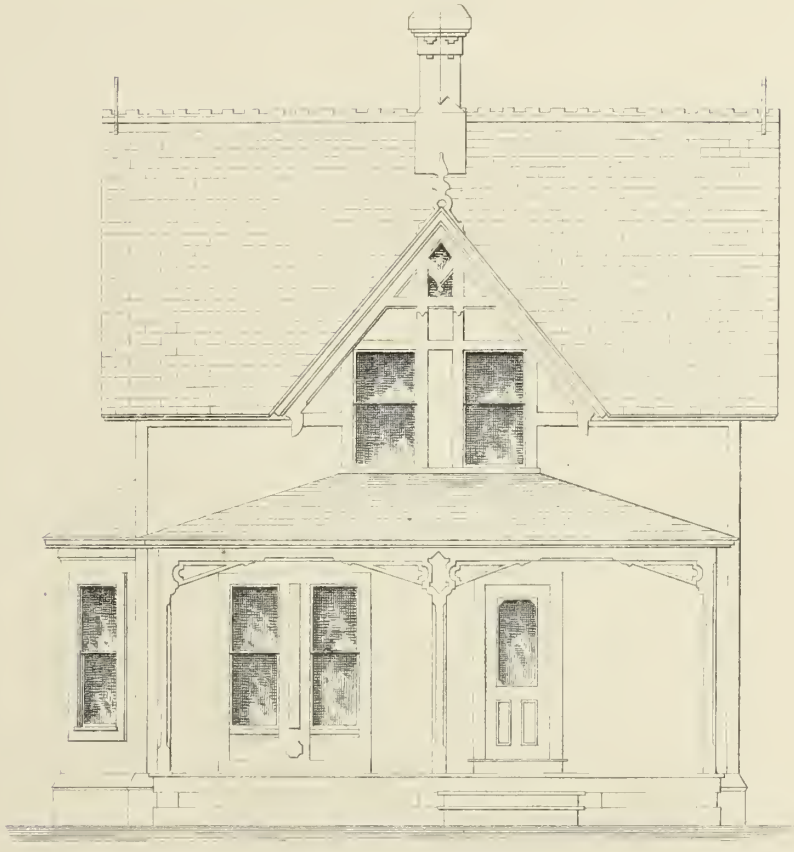
Scale. ½ Inch to One Foot

Design No. 3.

Plate No. 10.

Design No. 3.

Plate No. 11.



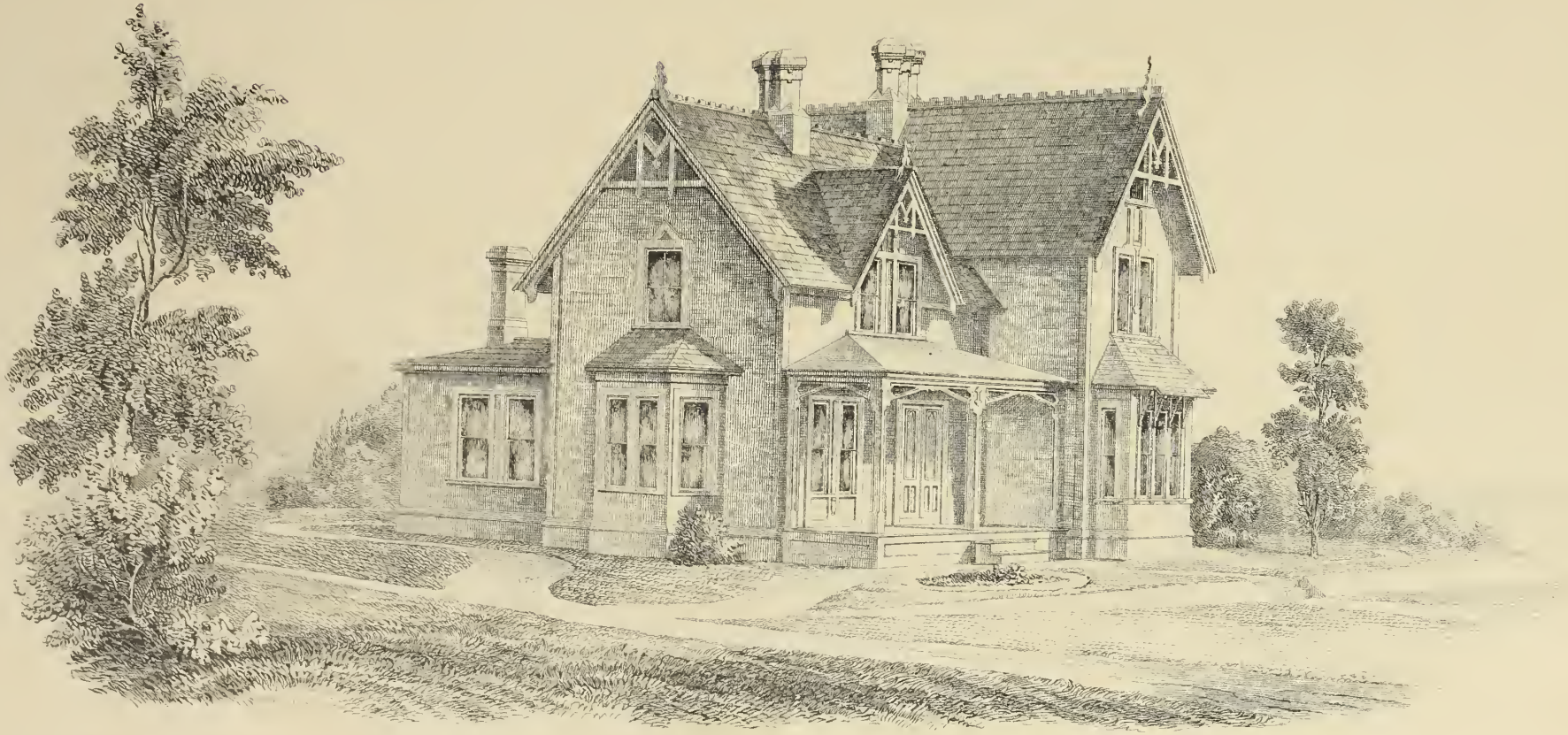
— FRONT ELEVATION. —

— SIDE ELEVATION. —

SCALE ⅛ Inch to One Foot

Design No. 4.

Plate No. 12.



Design No. 4.

Plate No. 13.

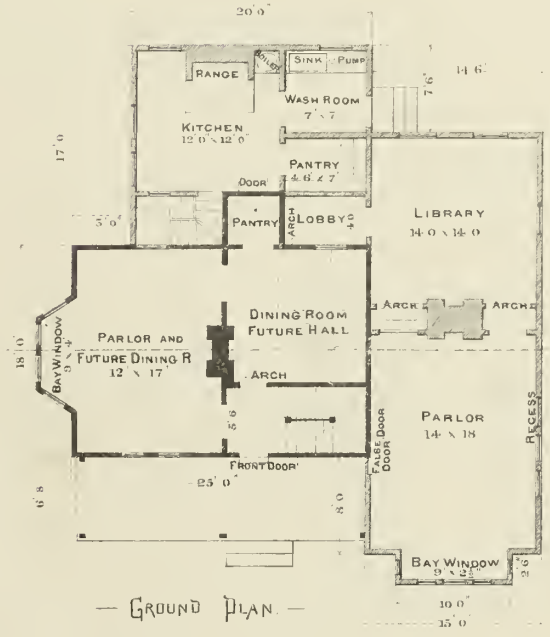
FRONT ELEVATION.
SCALE. 1/8 Inch to One Foot

SIDE ELEVATION.
SCALE. 1/16 Inch to One Foot

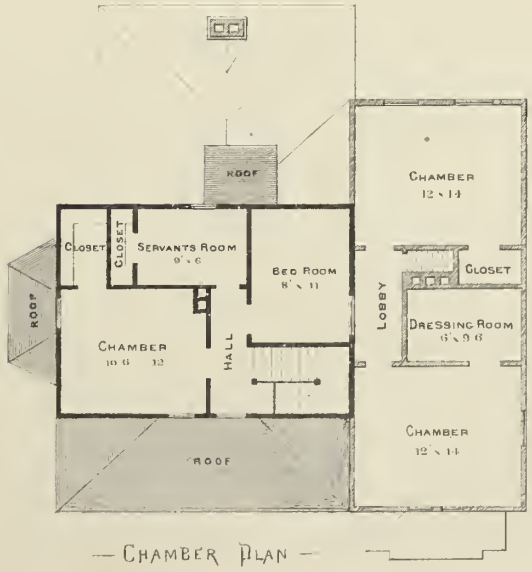
Engr & print. by KORFF BROTHERS 54 William St N Y

Design No. 3. 4.

Plate No. 14.



— Ground Plan —

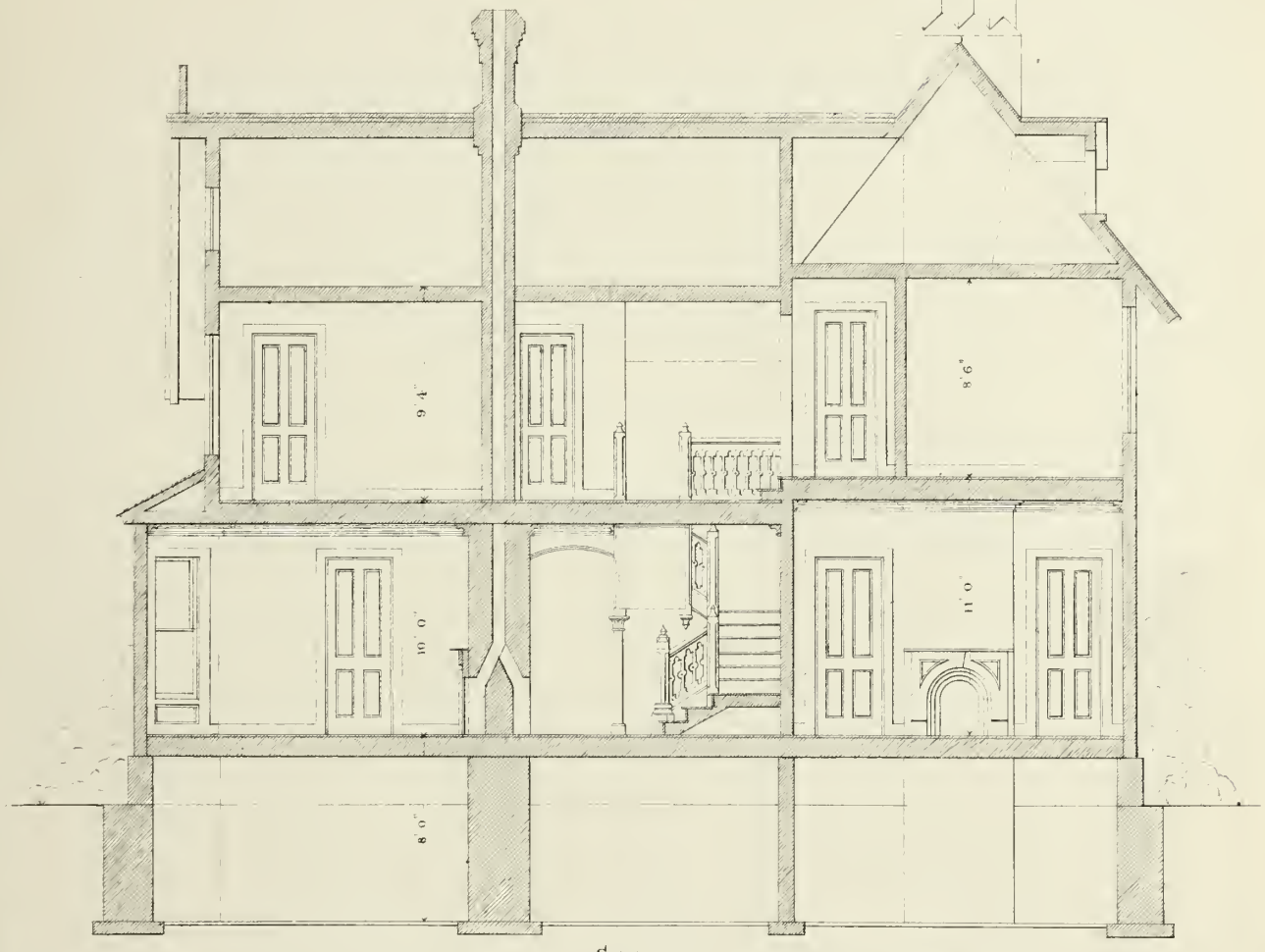


— Chamber Plan —

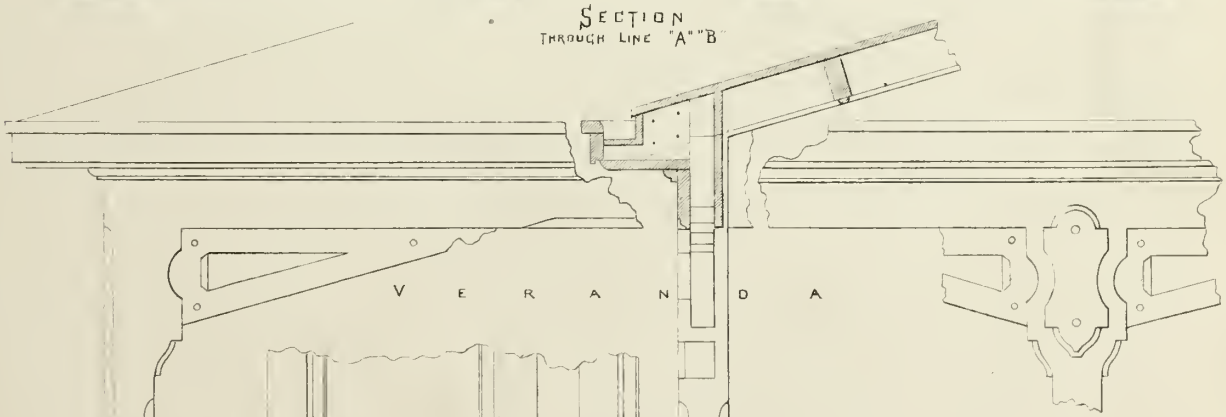
SCALE One Inch to One Foot

Design No. 3. 4.

Plate No. 15.

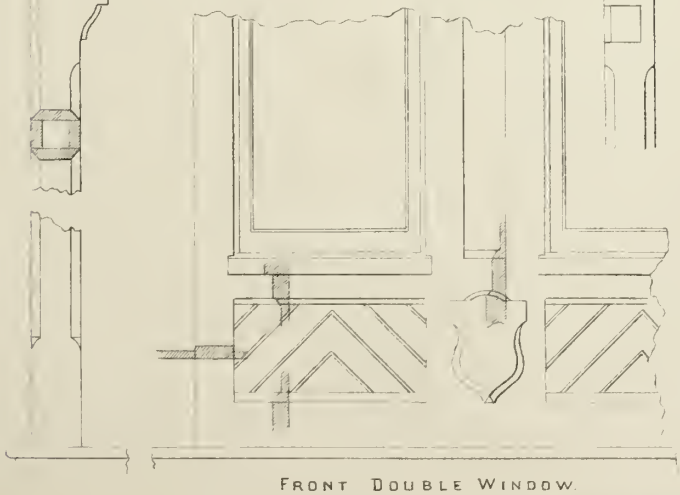


SECTION
THROUGH LINE "A" "B"

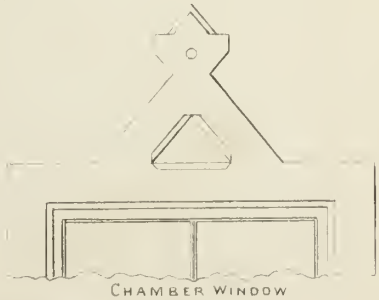


DETAILS.

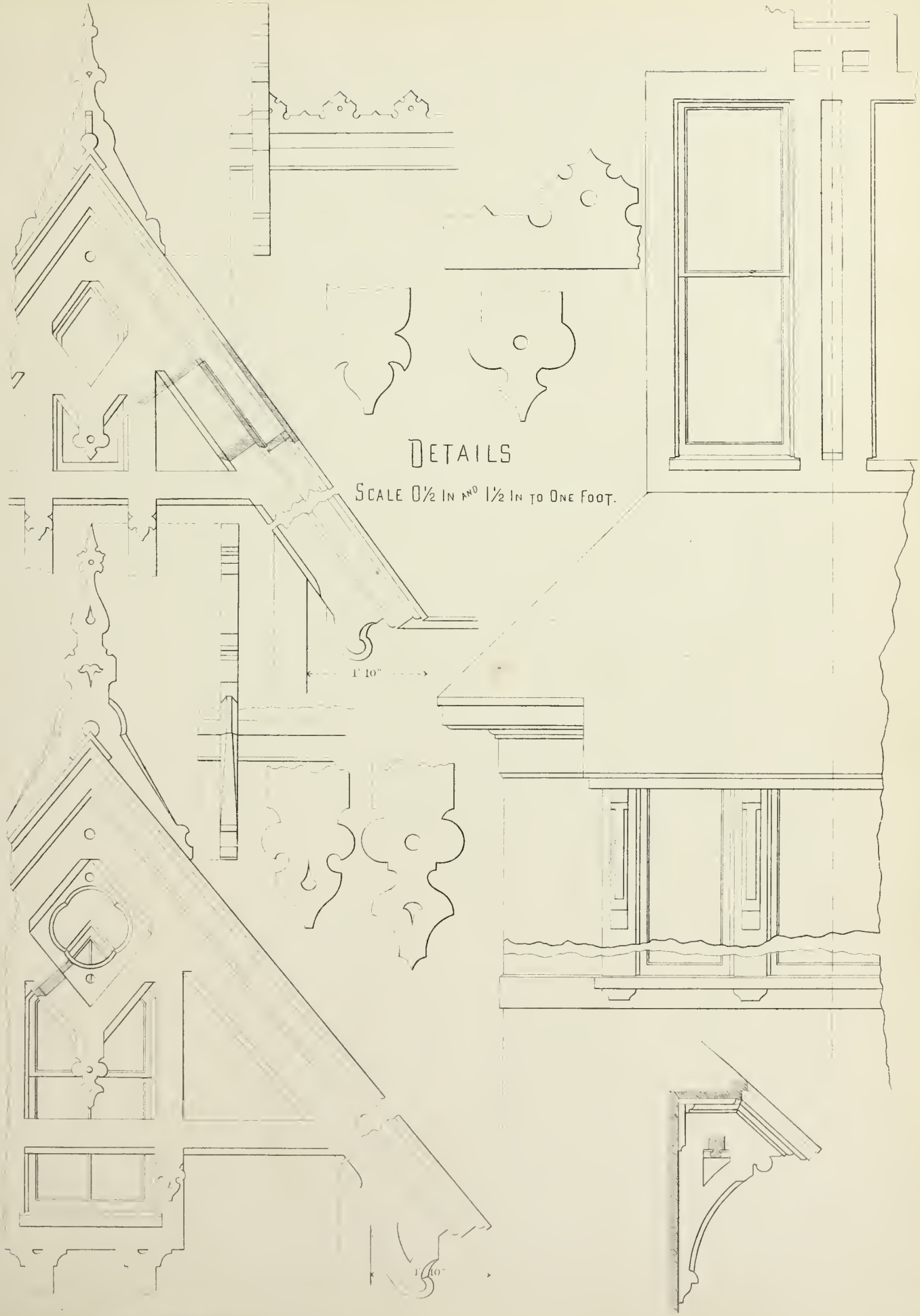
SCALE. 0½ IN. TO ONE FOOT.



FRONT DOUBLE WINDOW.

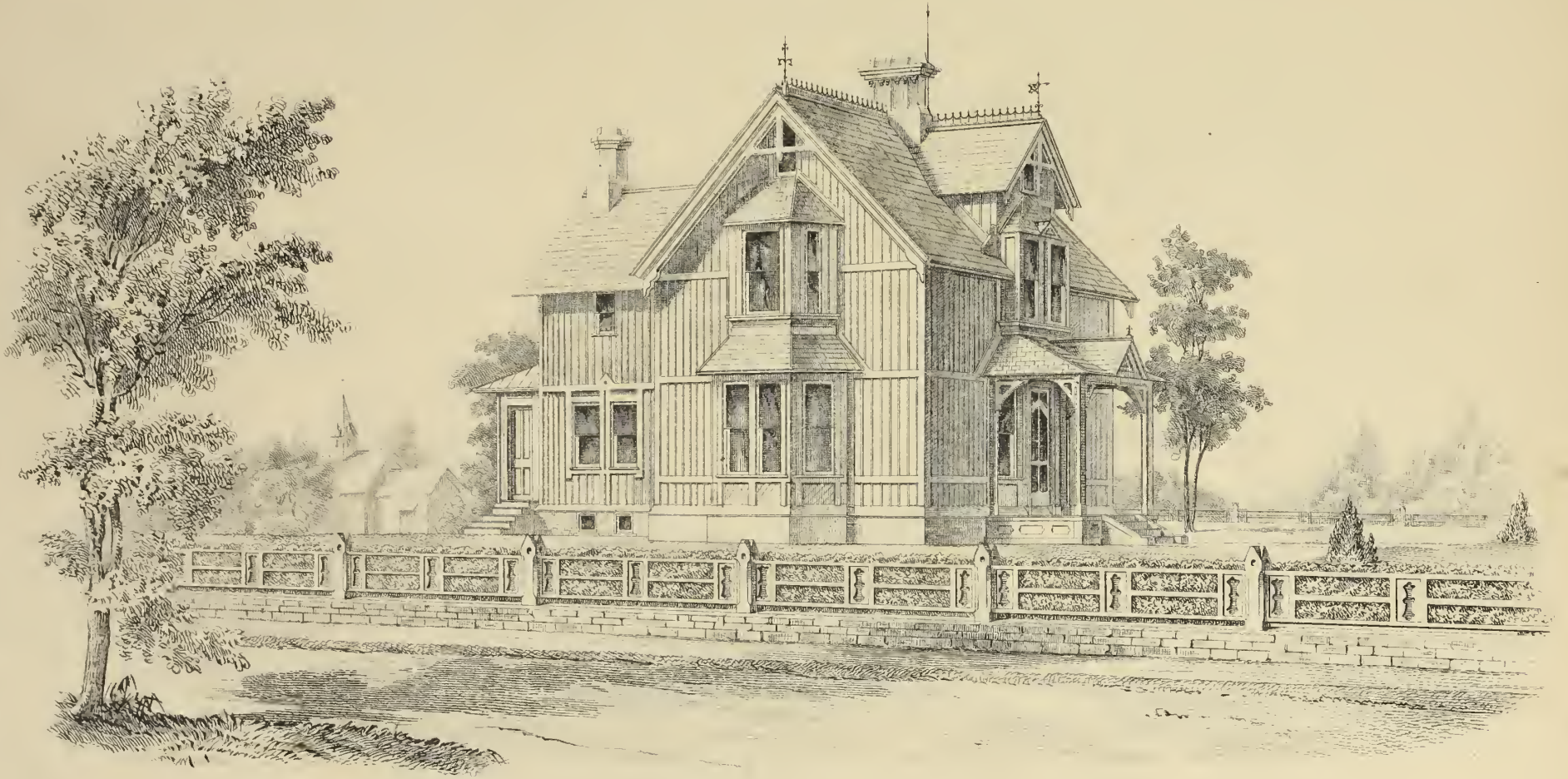


CHAMBER WINDOW
IN SIDE GABLE


DETAILS
SCALE 0½ IN AND 1½ IN TO ONE FOOT.
1' 10"
1' 10"

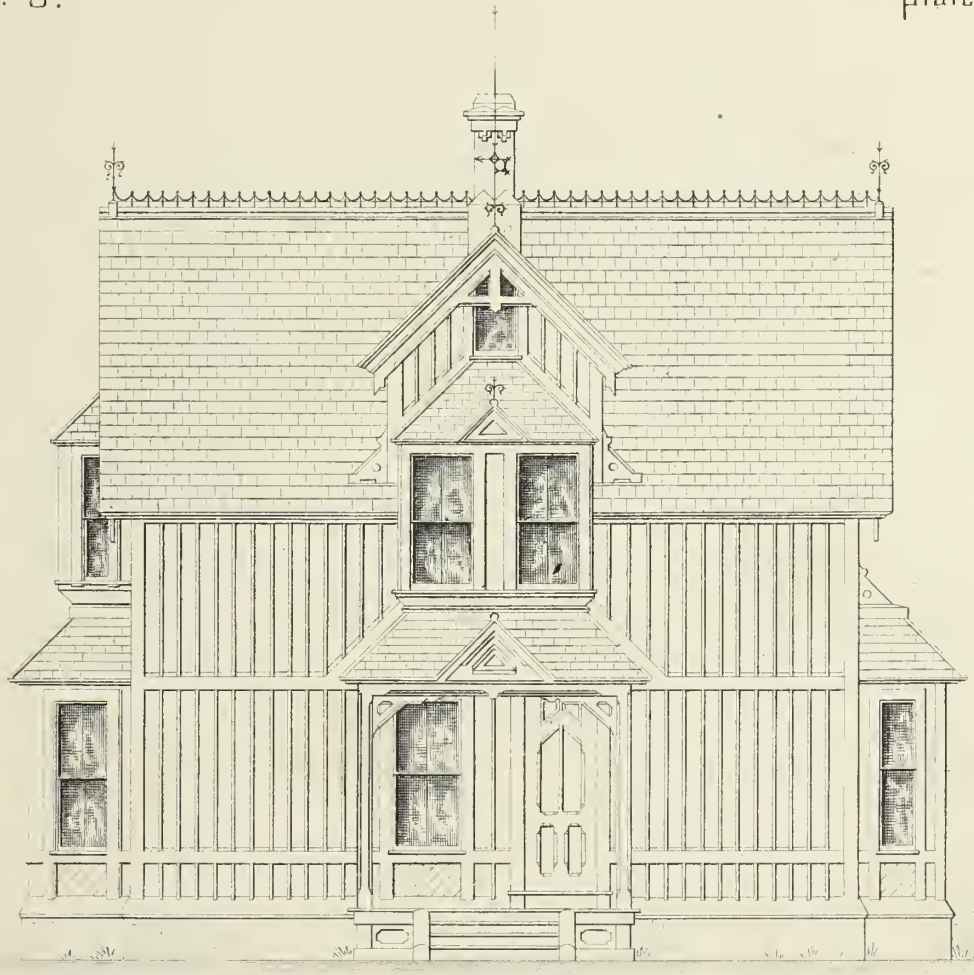
Design No. 5.

Plate No. 17.



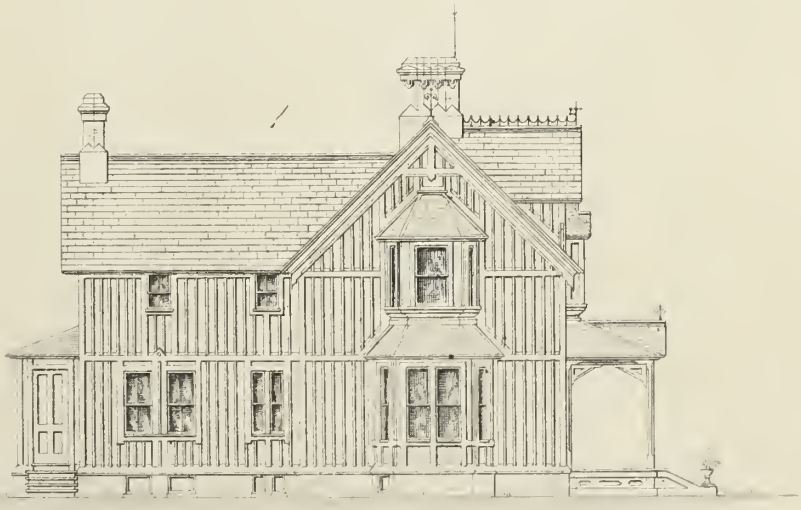
Design No. 5.

Plate No. 18.



FRONT ELEVATION

SCALE: 1/8 Inch to One Foot



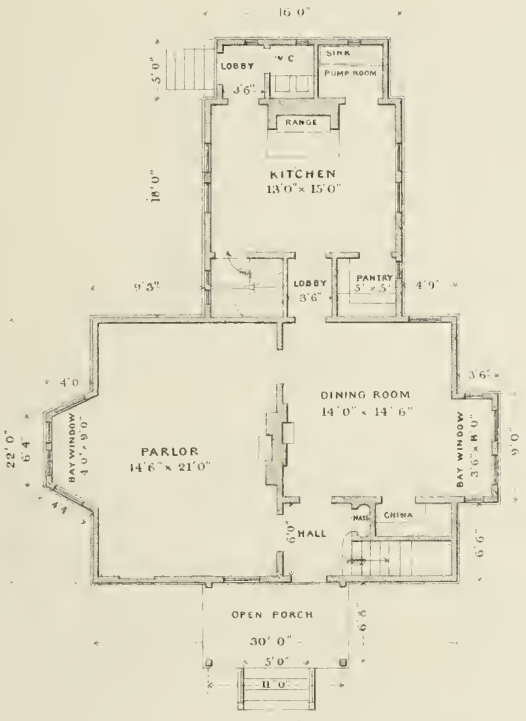
SIDE ELEVATION.

SCALE. 1/16 Inch to One Foot.

Engr & print. by KORFF BROTHERS 54 William St N Y

Design No. 5.

Plate No. 19.



Ground Plan.

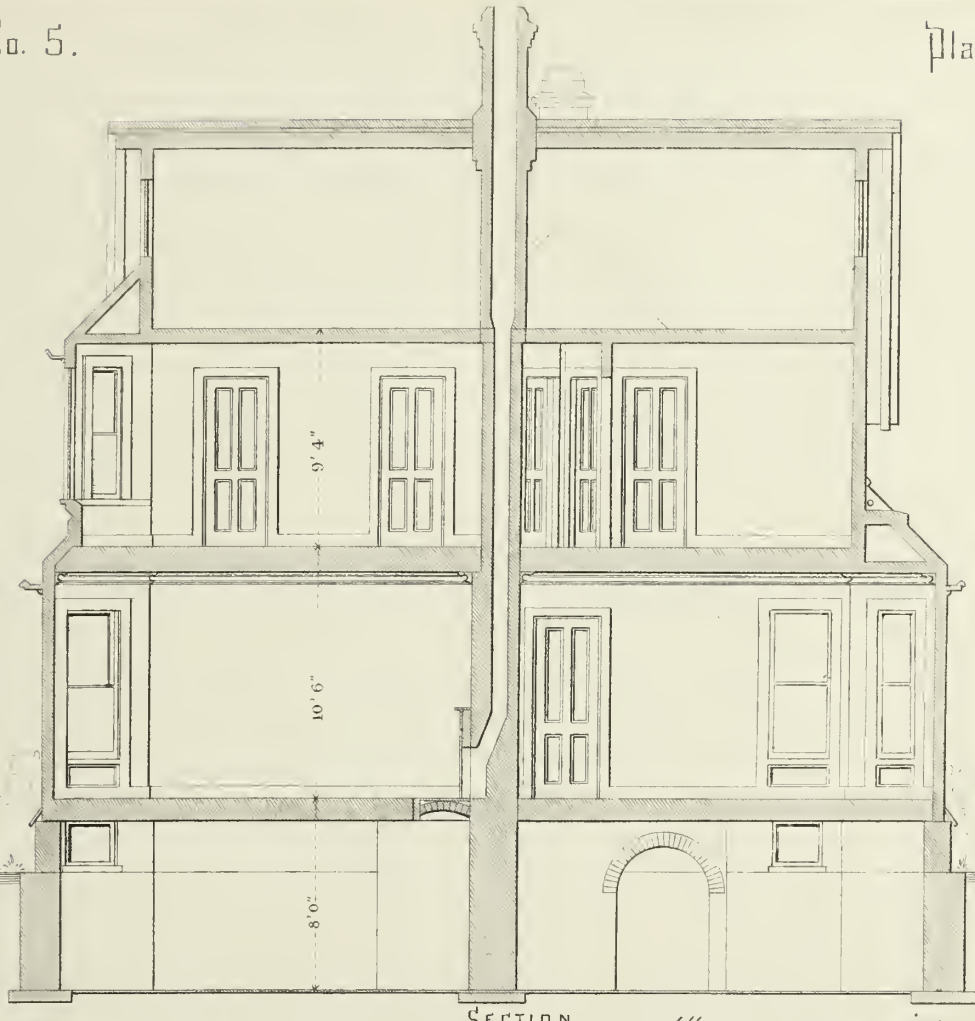
Chamber Plan.

Side Elevation.

Scale. 1/16 Inch to One Foot.

Design No. 5.

Plate No. 20.



SECTION.
THROUGH LINE "A" "B"

CENTRE LINE.

FRONT PORCH

FRONT GABLE

FRONT WINDOW

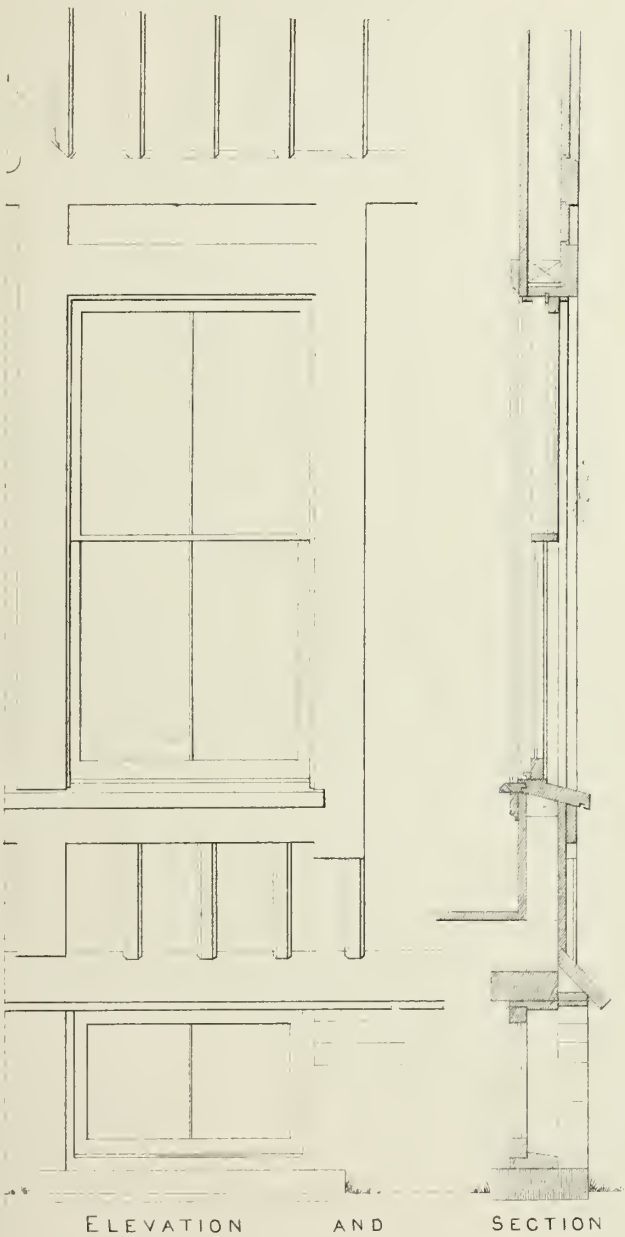
CENTRE LINE

DETAILS

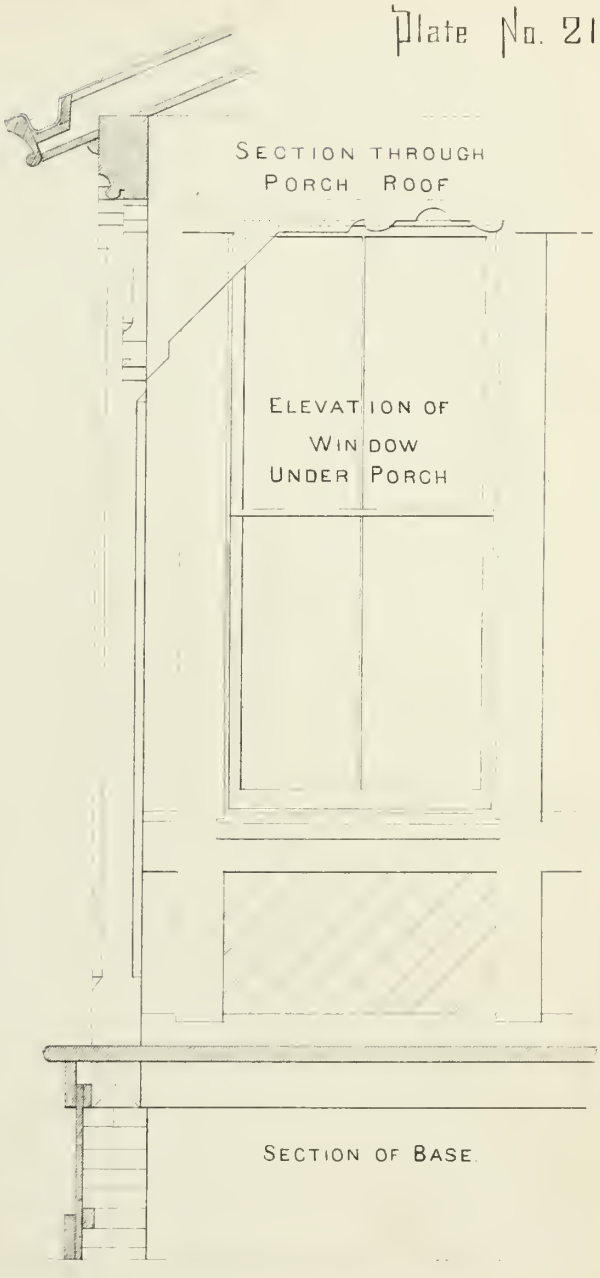
SCALE. ½ Inch to One Foot.

Design No. 5.

Plate No. 21.



ELEVATION AND SECTION
OF KITCHEN WINDOWS.



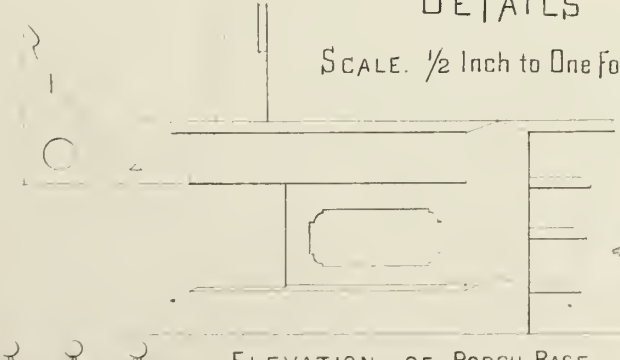
SECTION THROUGH
PORCH ROOF

ELEVATION OF
WINDOW
UNDER PORCH

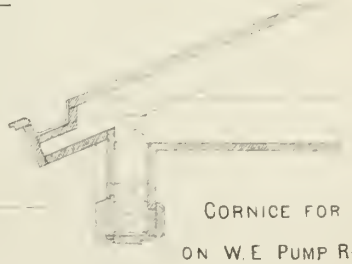
SECTION OF BASE.

DETAILS

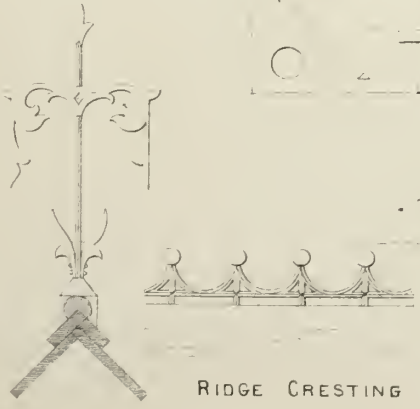
SCALE. ½ Inch to One Foot.



ELEVATION OF PORCH BASE.



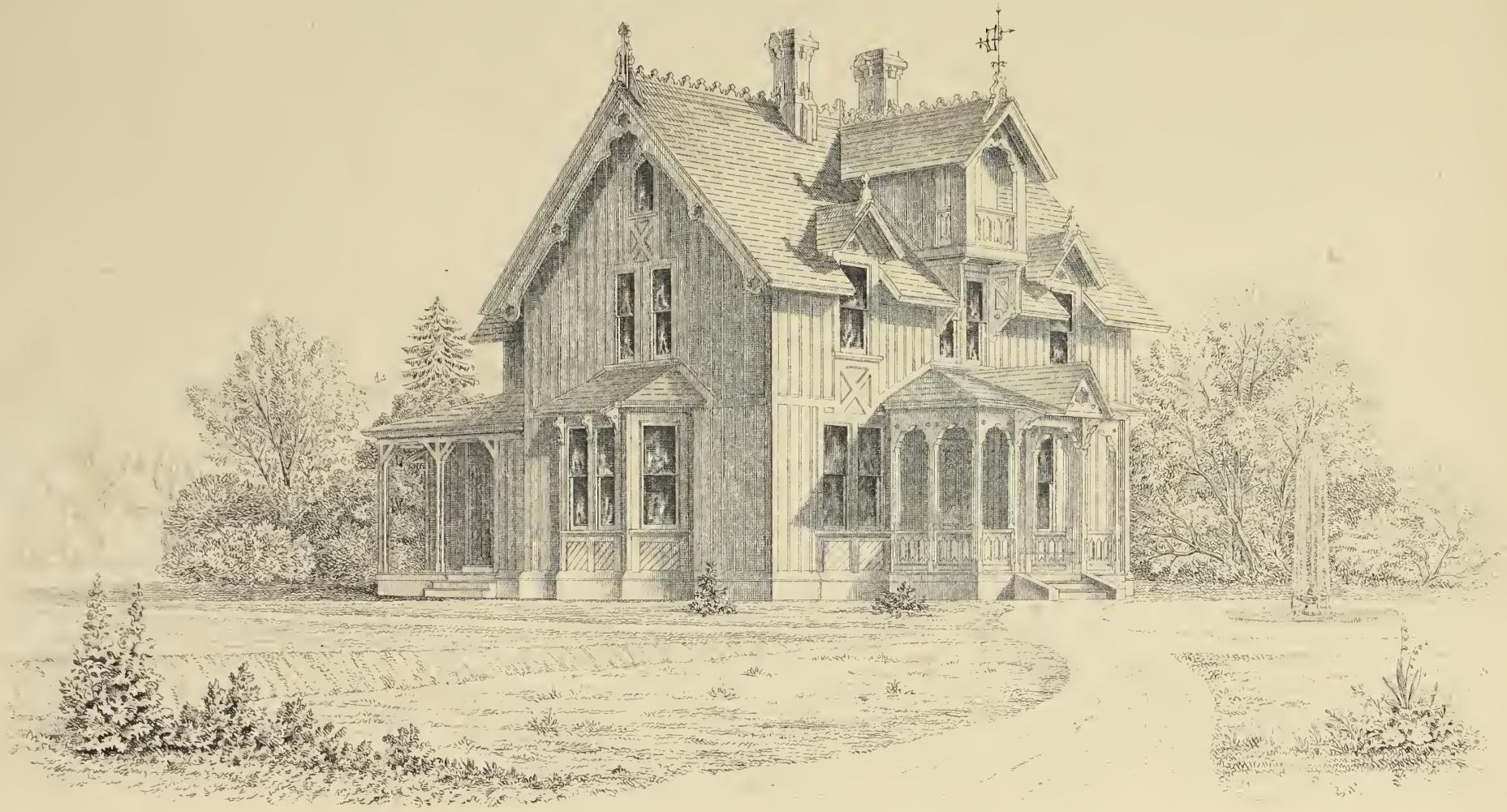
CORNICE FOR ROOF
ON W.E PUMP ROOM etc



RIDGE CRESTING

Design No. 6

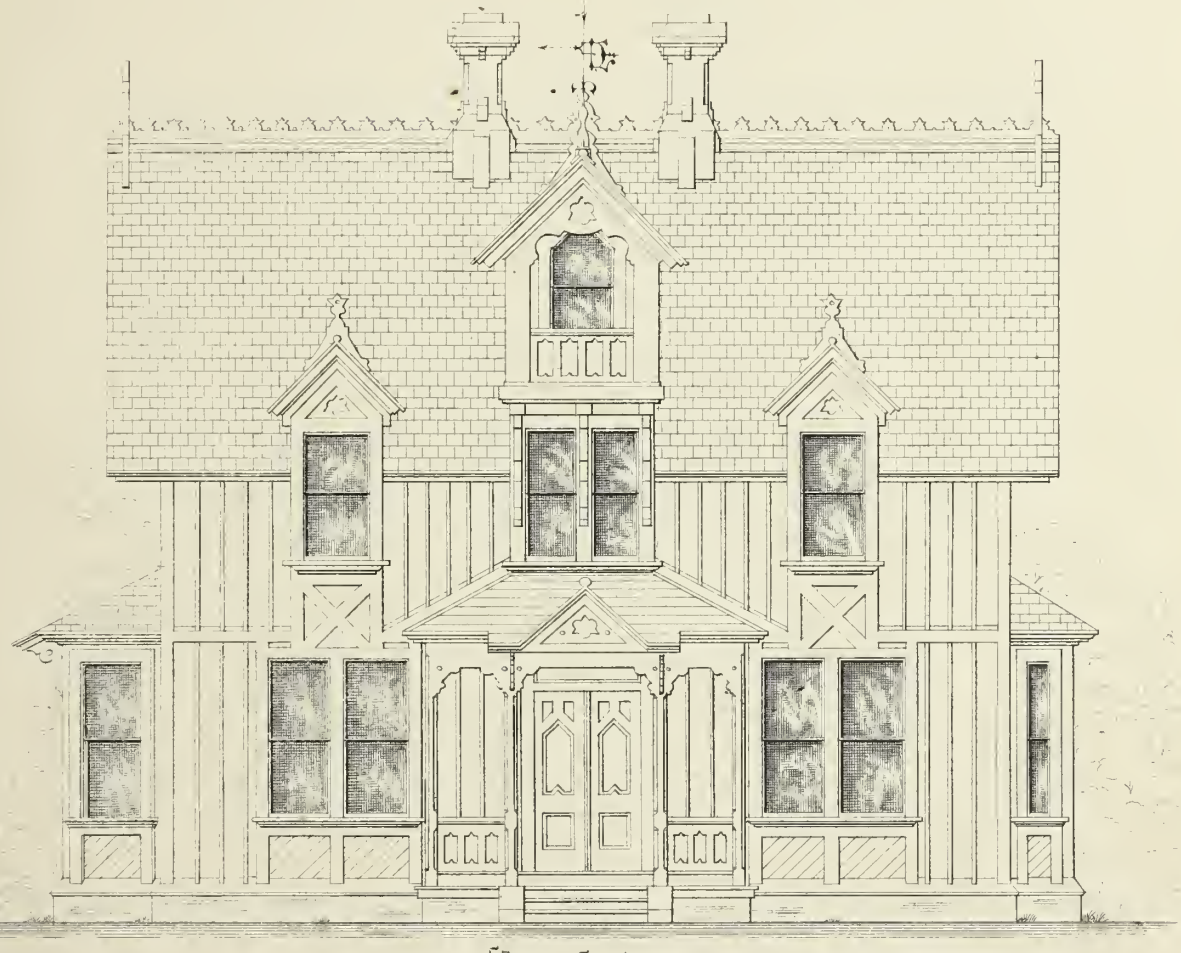
Plate No. 22.



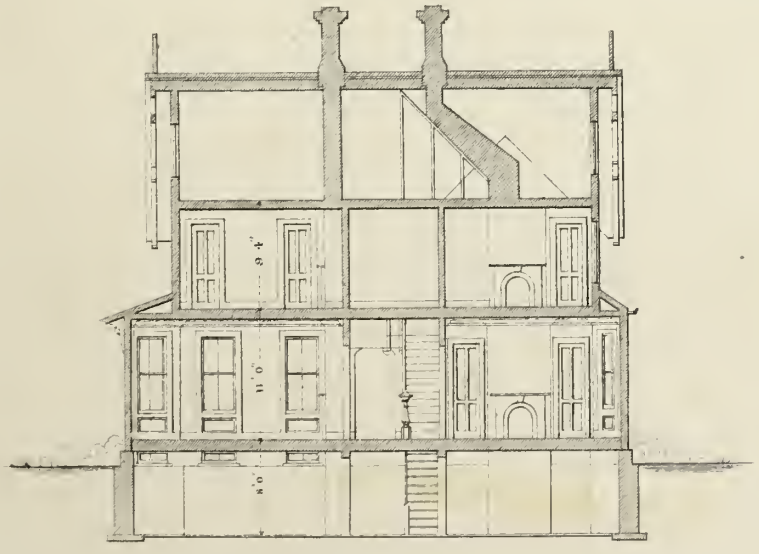
LIBRARY
ILLINOIS.

Design No. 6

Plate No. 23.



FRONT ELEVATION.
SCALE. 1/8 Inch to One Foot

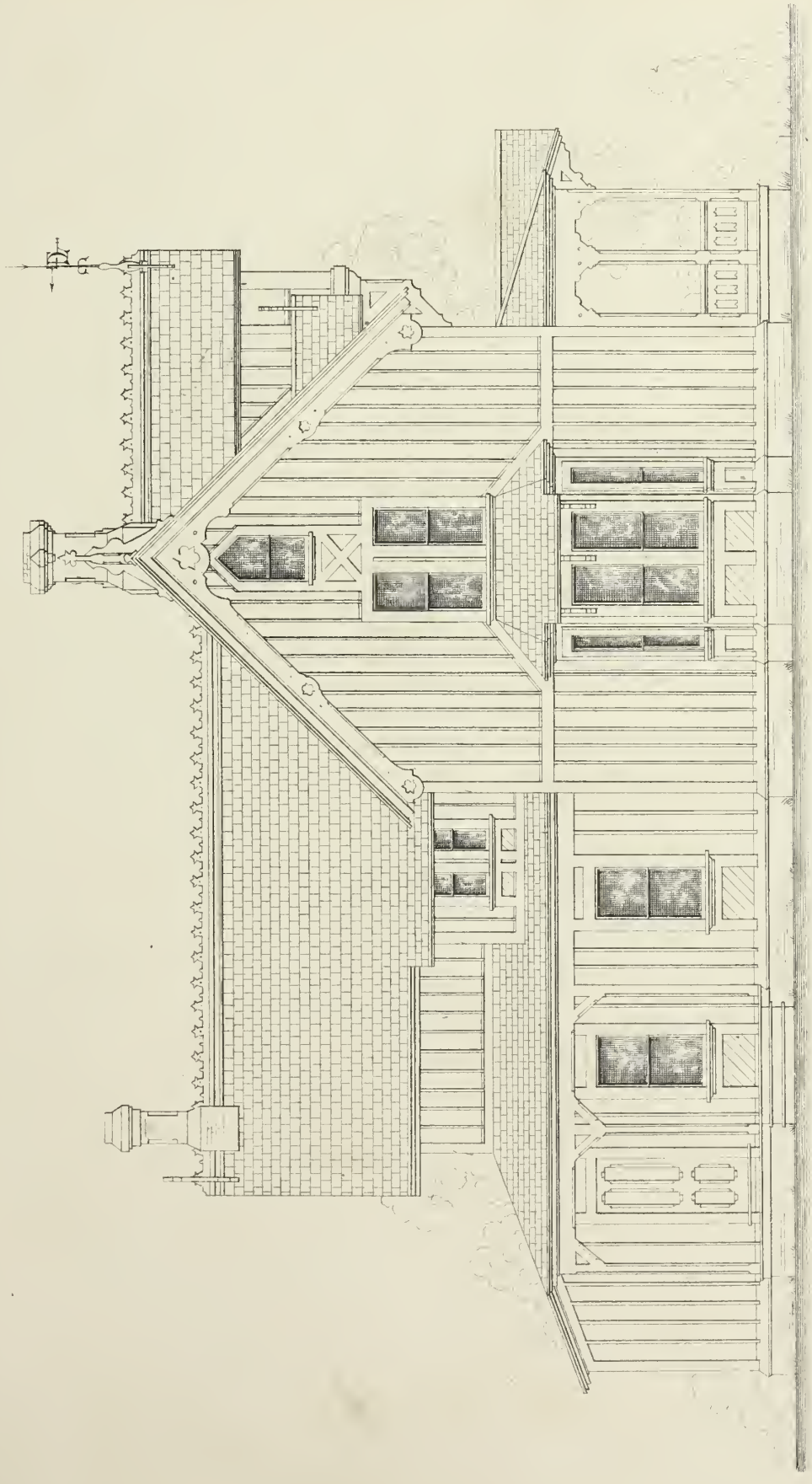


SECTION
THROUGH LINE "A" "B"
SCALE. 1/16 Inch to One Foot.

Engr. & print. by KORFF BROTHERS 54 William St N.Y.

Design No. 6

Plate No. 24.



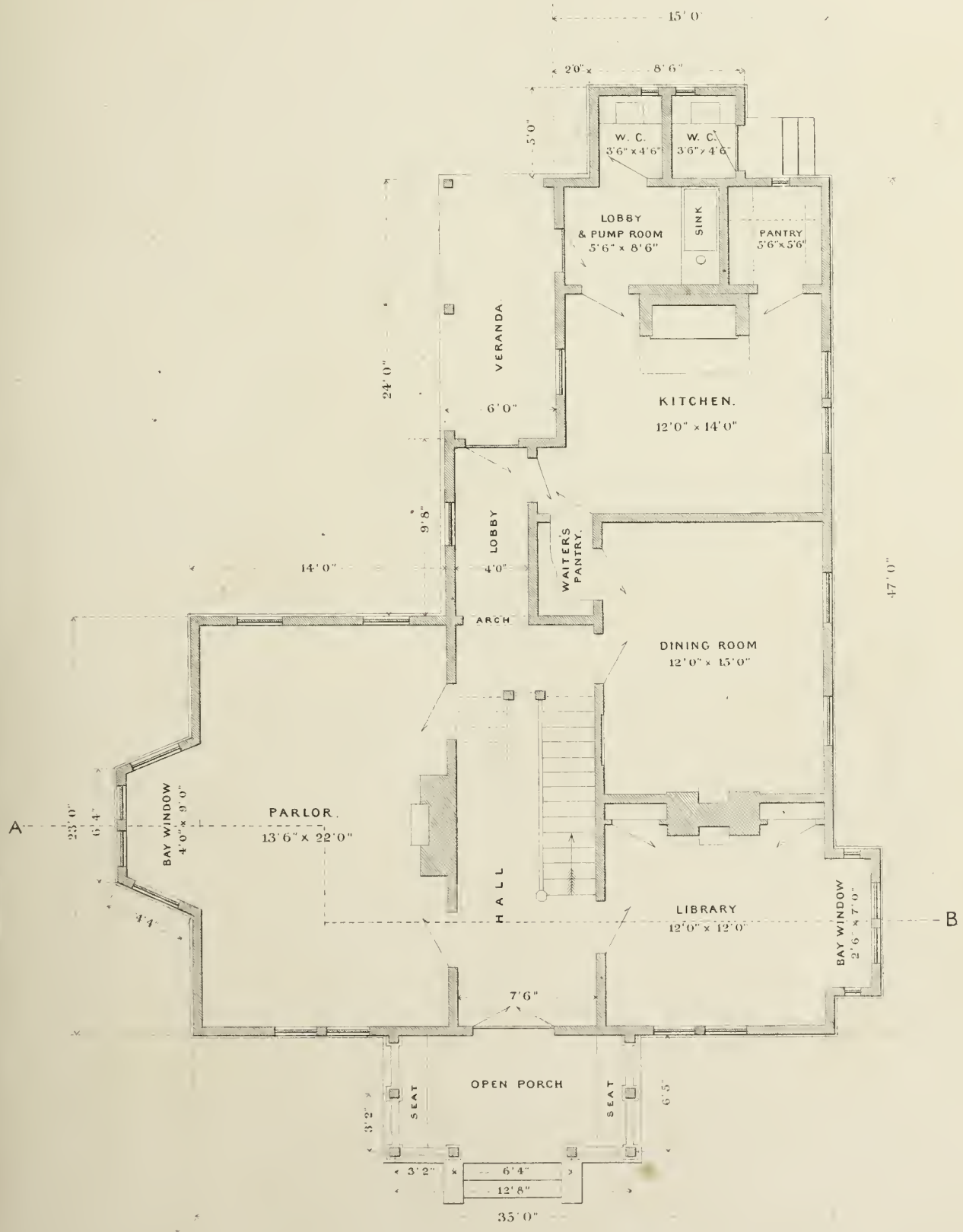
SIDE ELEVATION

SCALE. 1/8 Inch to One Foot

Engr. & print. by KORFF BROTHERS 54 William St N.Y.

Design No. 6

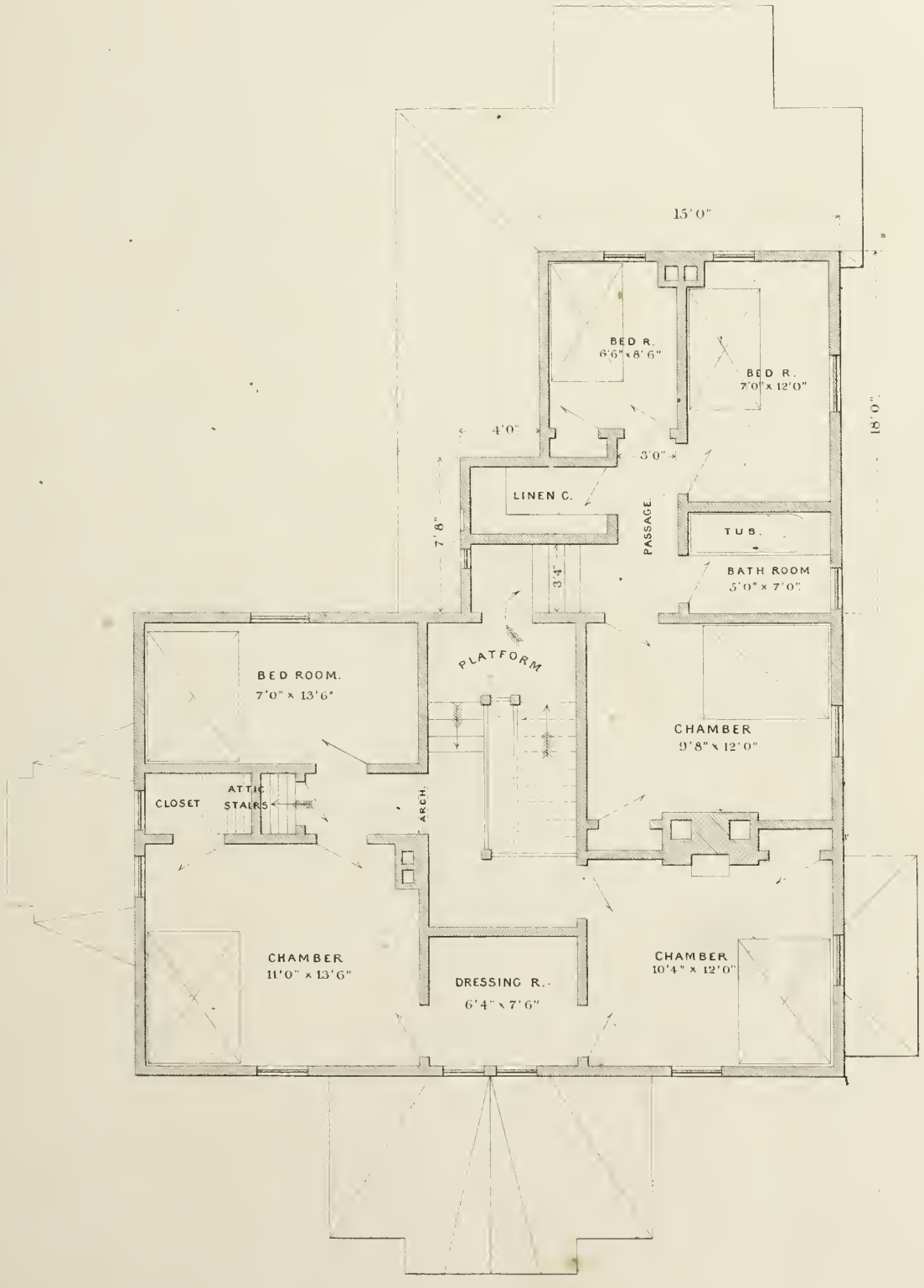
Plate No. 25.



Ground Plan.

Design No. 6

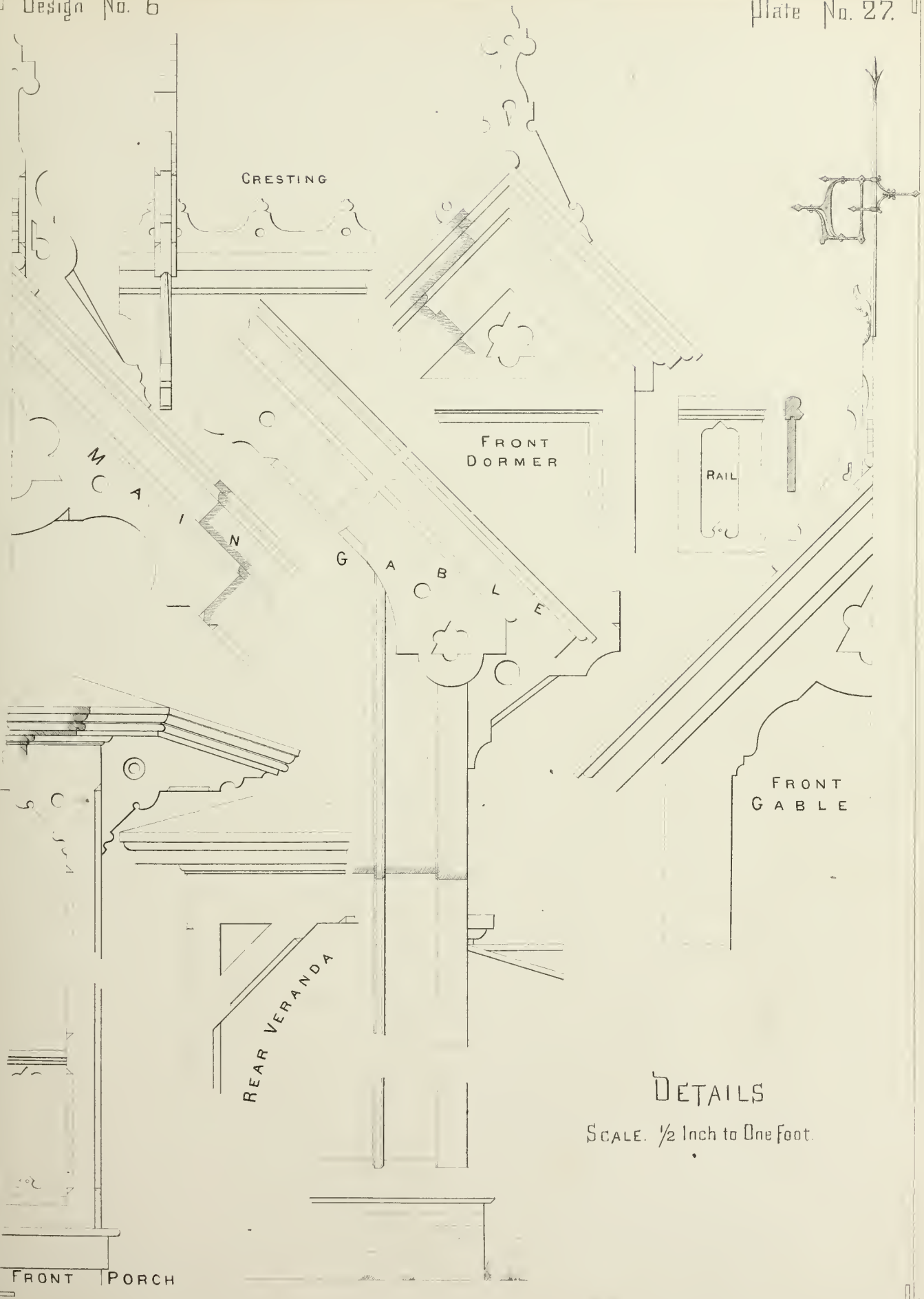
Plate No. 26



CHAMBER PLAN.

Design No. 6

Plate No. 27.

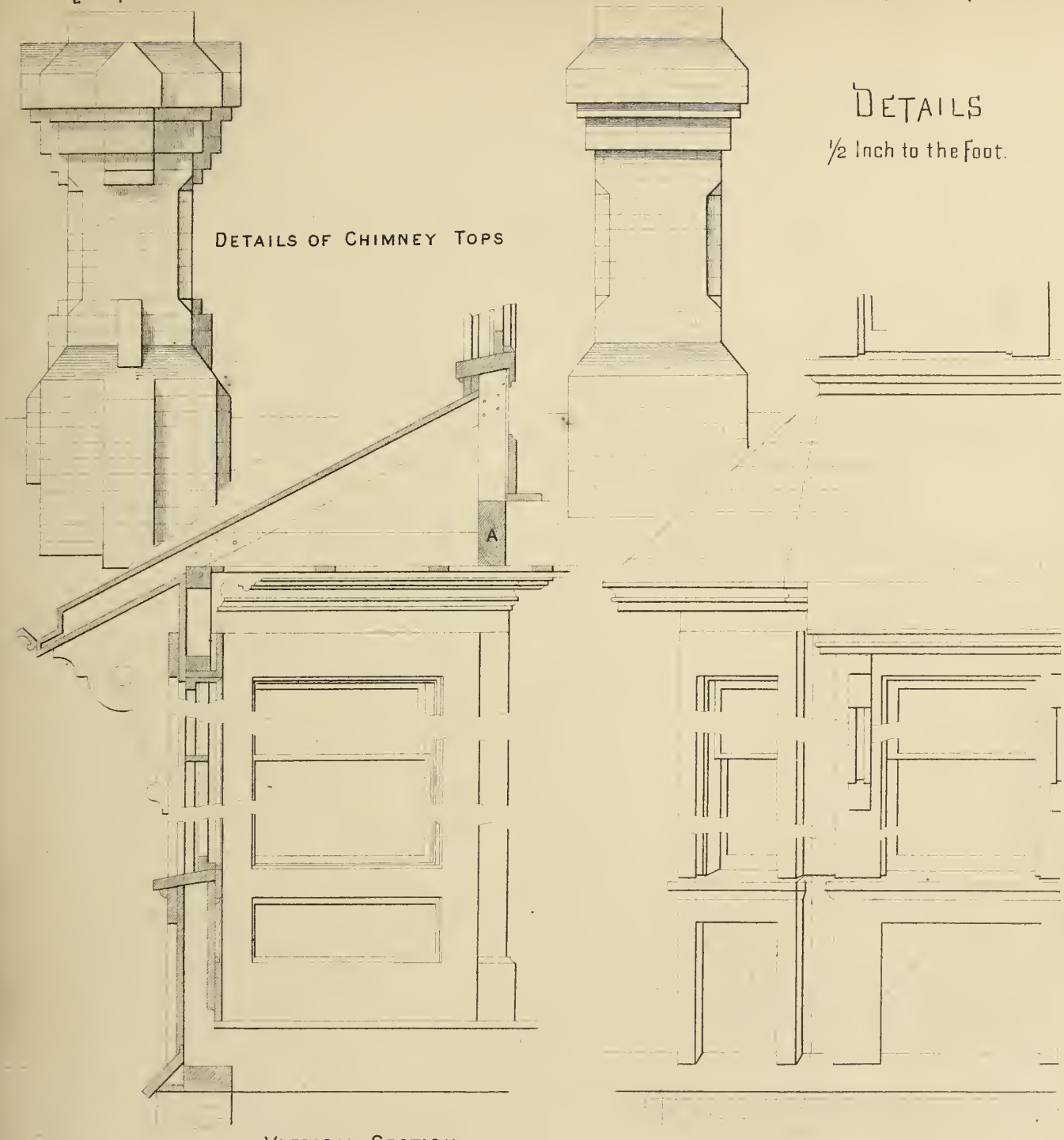


DETAILS

SCALE. ½ Inch to One Foot.

Details

½ Inch to the Foot.

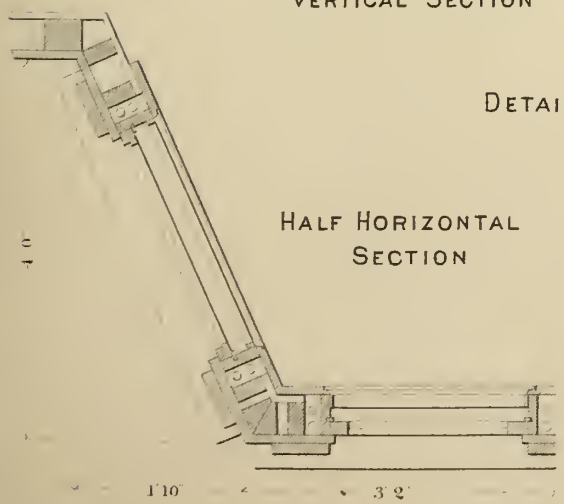


Details of Chimney Tops

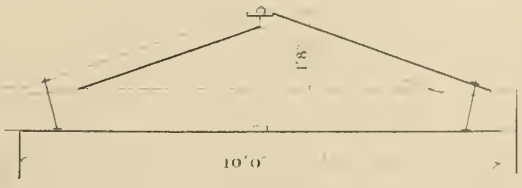
Vertical Section

Half Front Elevation

Details of Parlor Bay Window



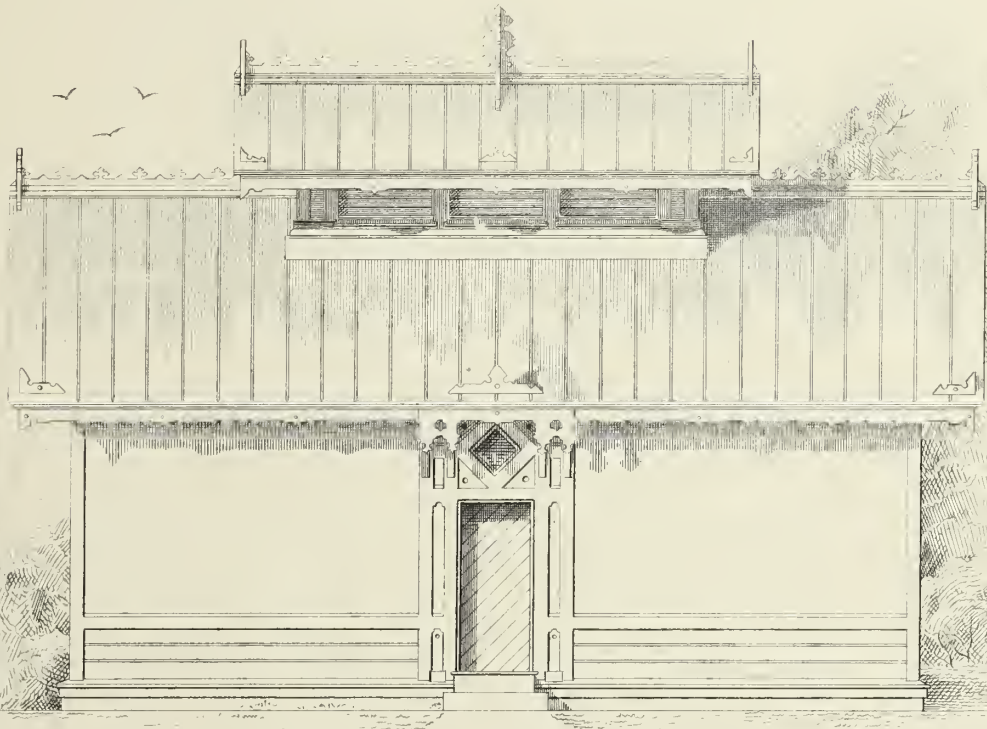
Half Horizontal Section



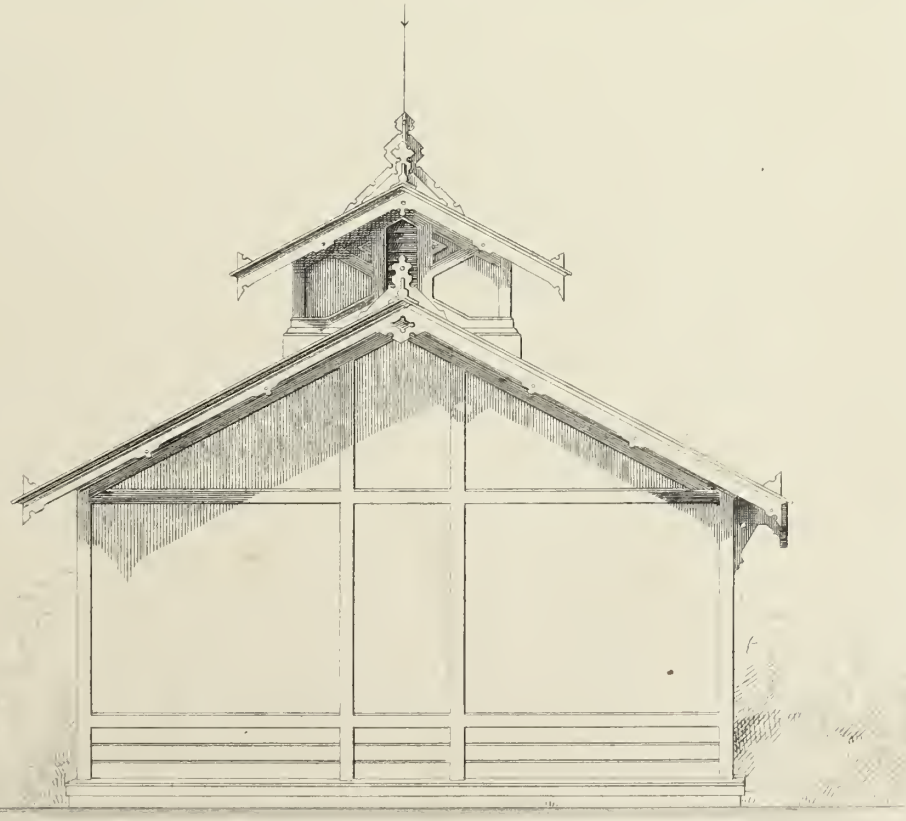
Trussed Girder over Bay Window at A

Design No. 7.

Plate No. 29.



FRONT ELEVATION

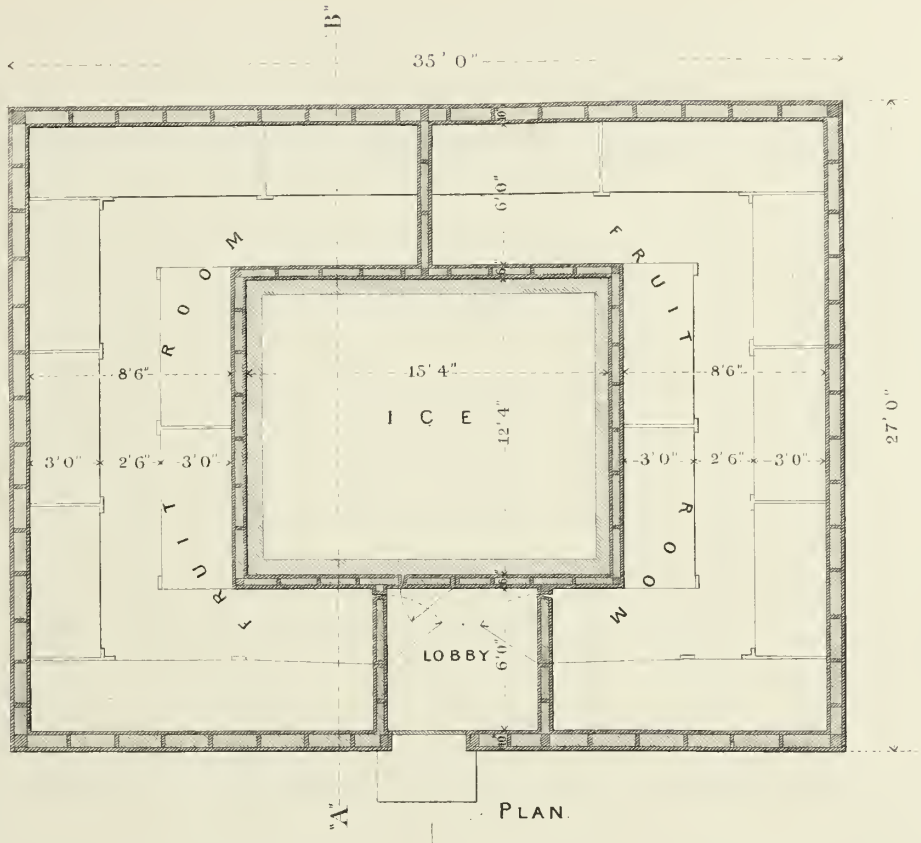


SIDE ELEVATION

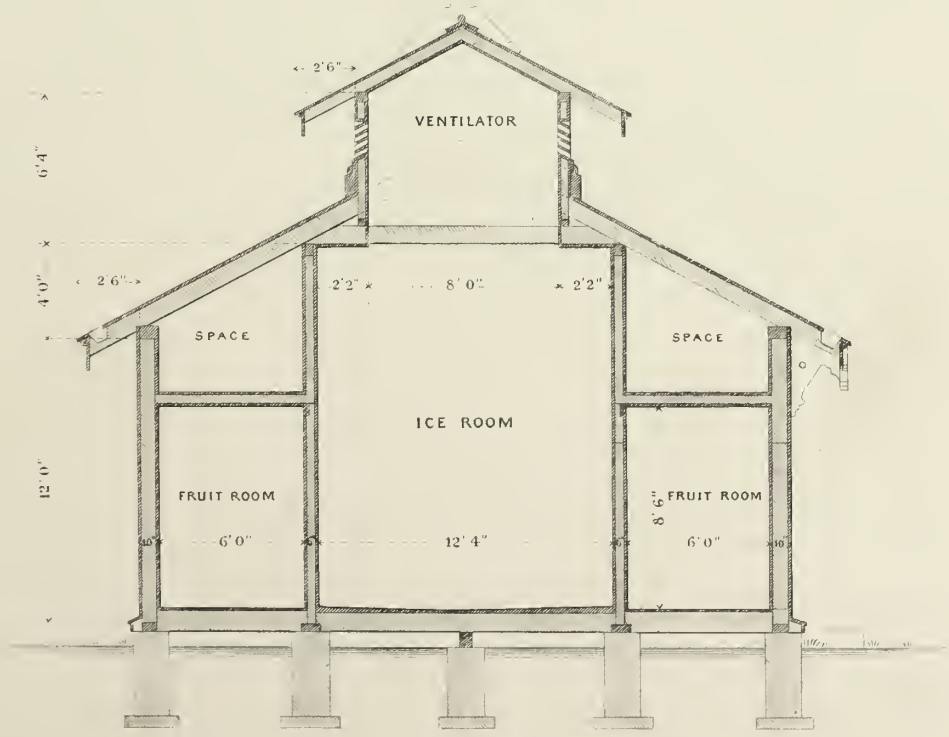
SCALE 1/8 Inch to One Foot

Design No. 7.

Plate No. 30.



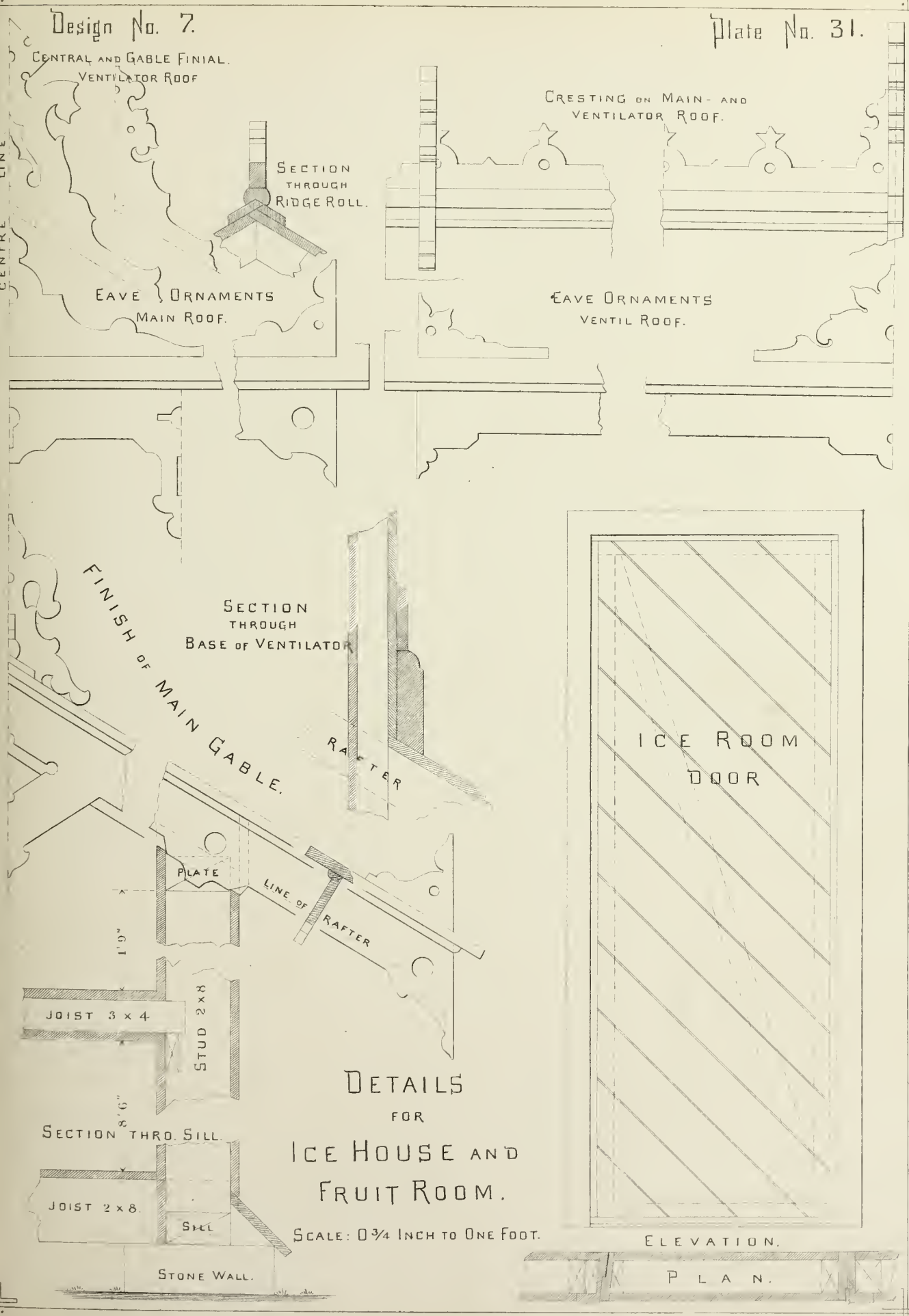
PLAN.



SECTION
THROUGH LINE "A" "B"

Design No. 7.

Plate No. 31.

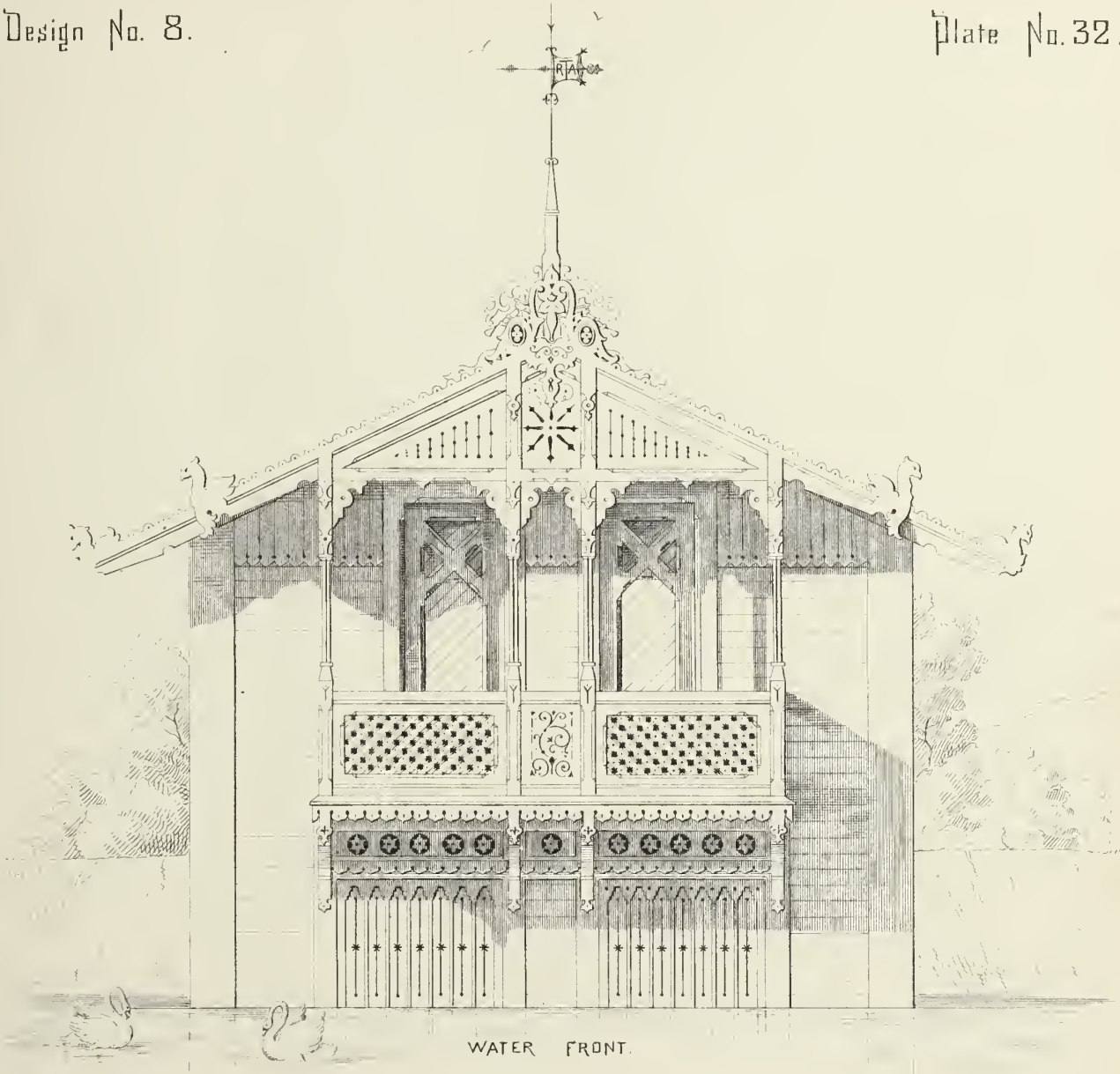


Details for Ice House and Fruit Room.

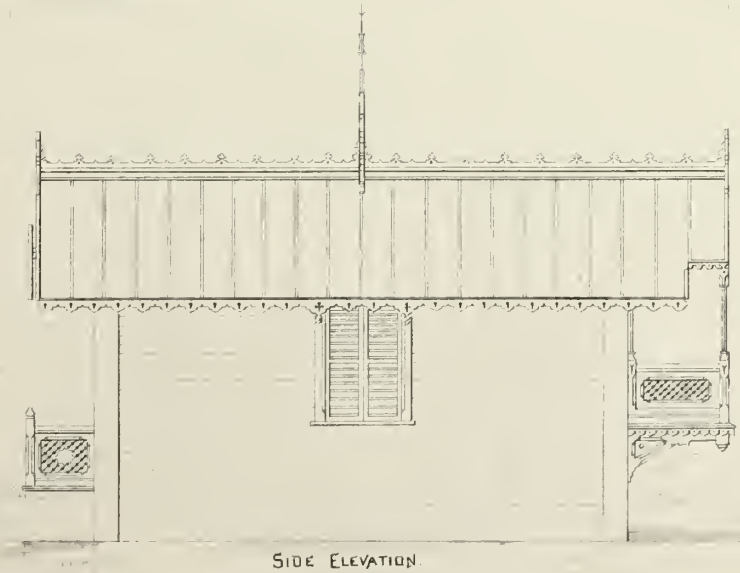
Scale: 0 3/4 Inch to One Foot.

Design No. 8.

Plate No. 32.



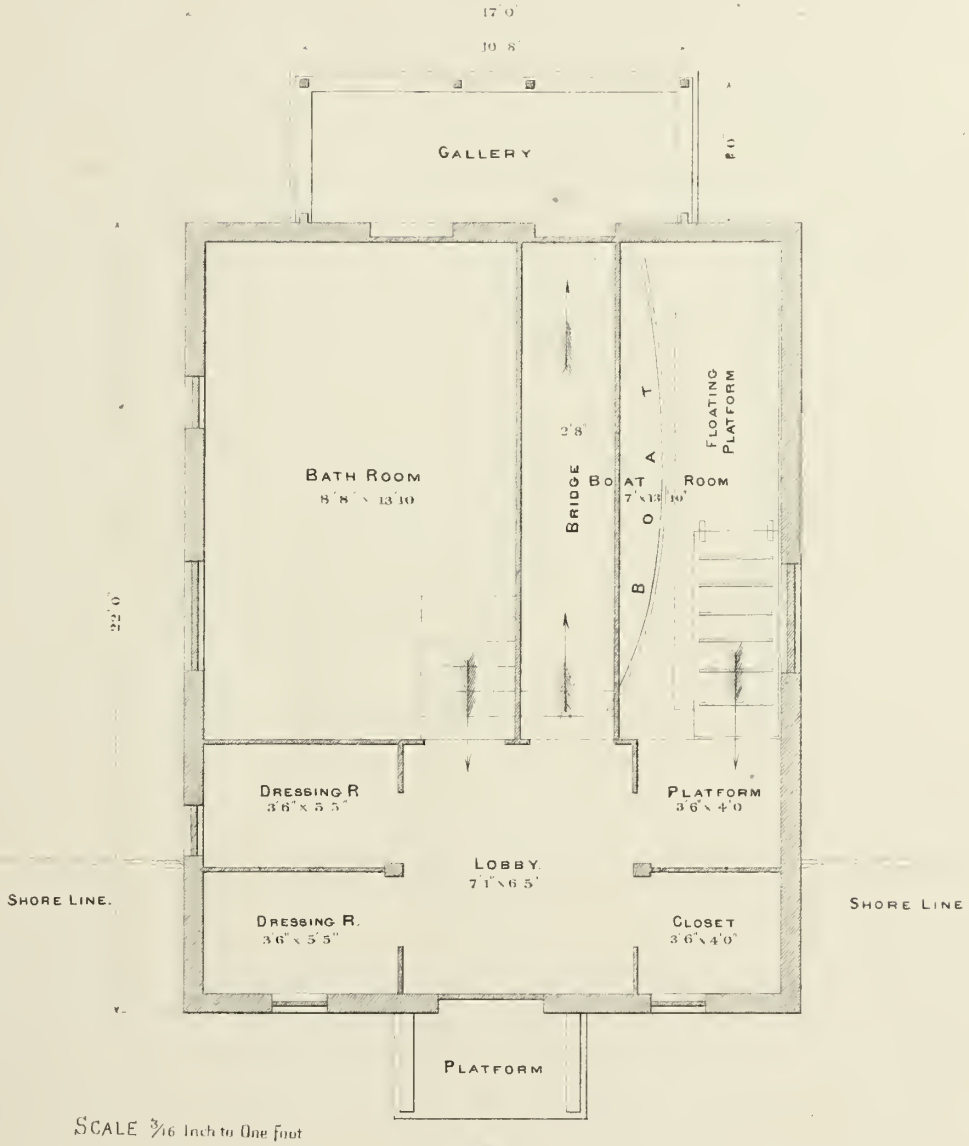
WATER FRONT.



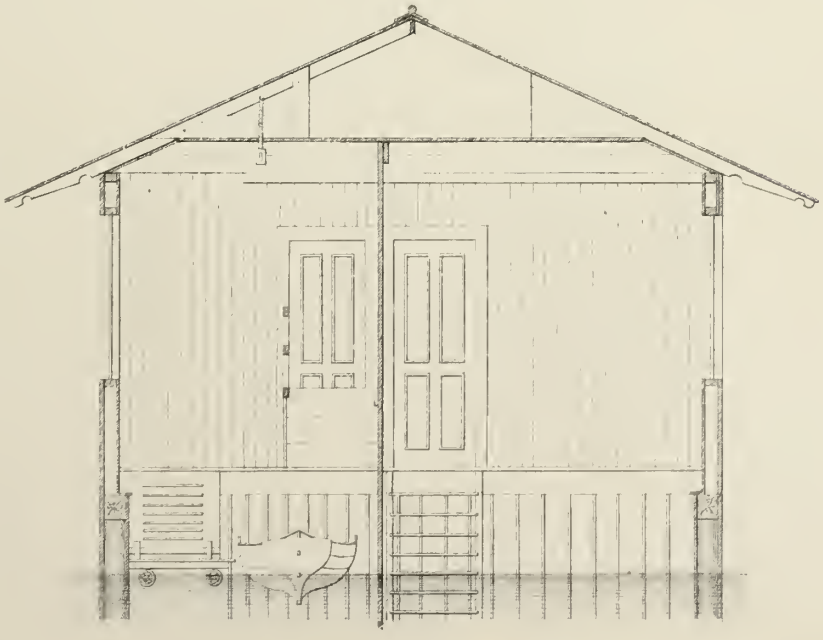
SIDE ELEVATION.

Design No. 8.

Plate No. 33

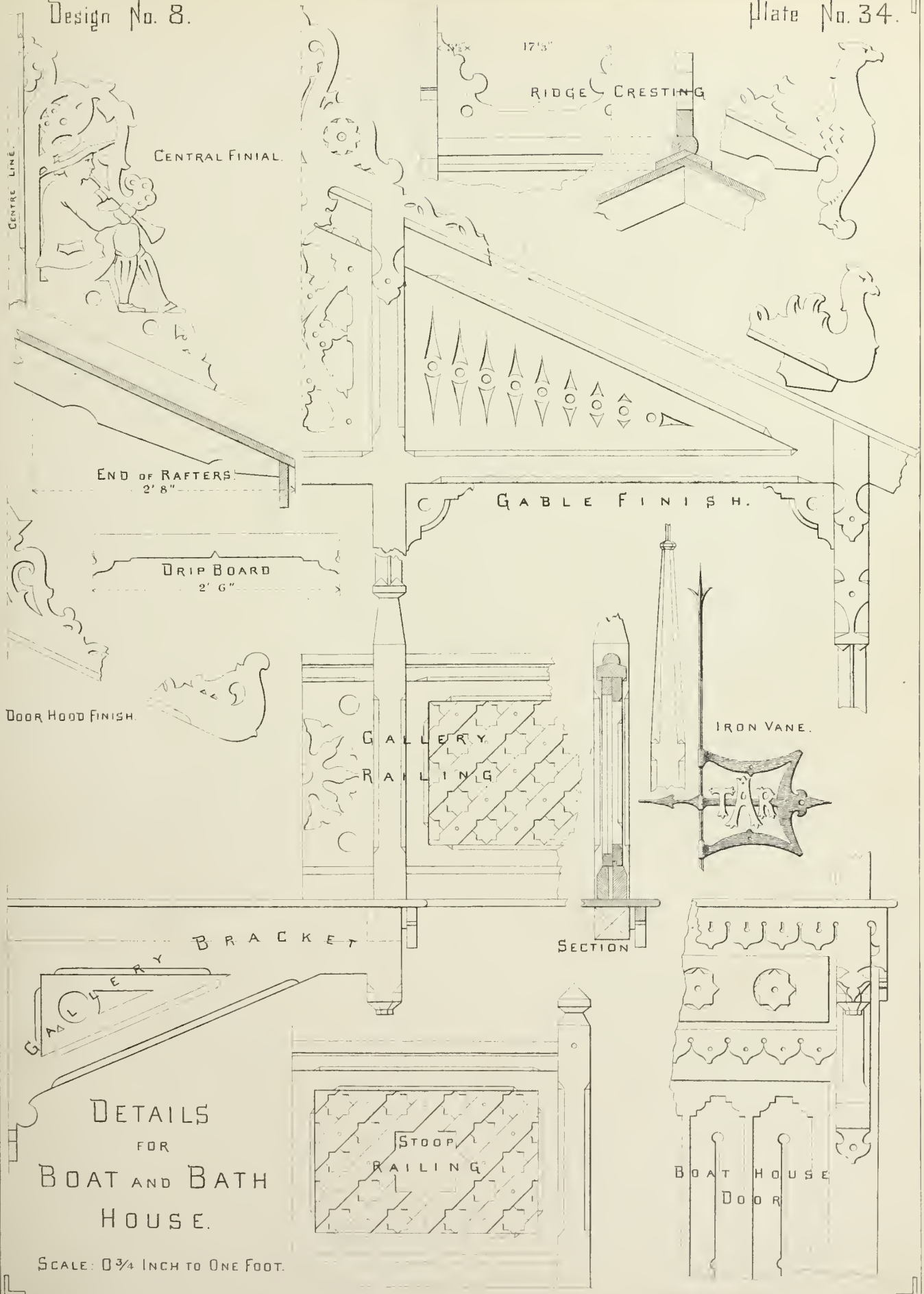


SCALE 3/16 Inch to One Foot



Design No. 8.

Plate No. 34.



DETAILS FOR BOAT AND BATH HOUSE.

SCALE: 0 3/4 INCH TO ONE FOOT.

Design No. 9.

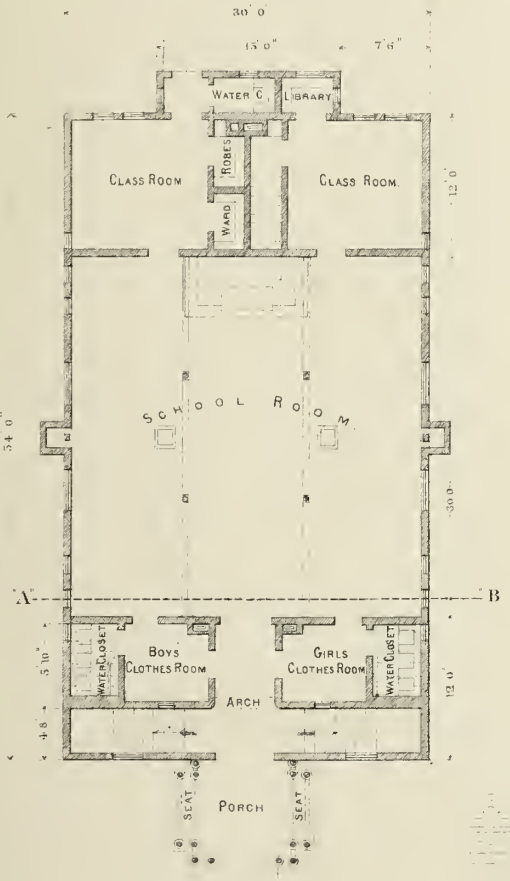
Plate No. 35.

Engr & print by KORFF BROTHERS 54 William St N

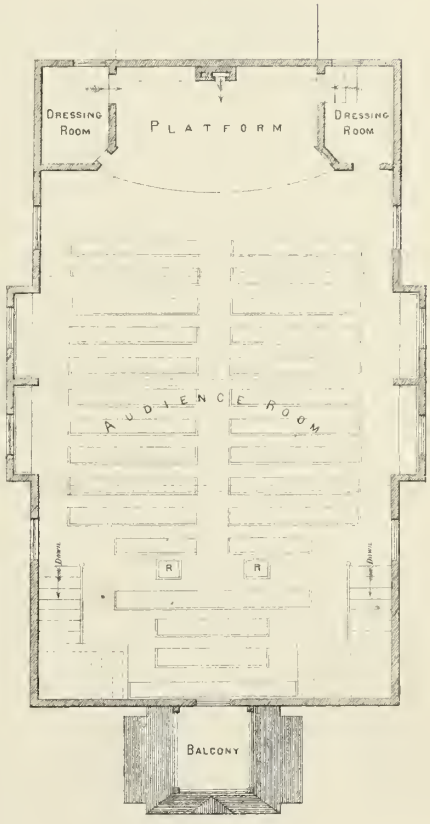
Design No. 9.

Plate No. 36

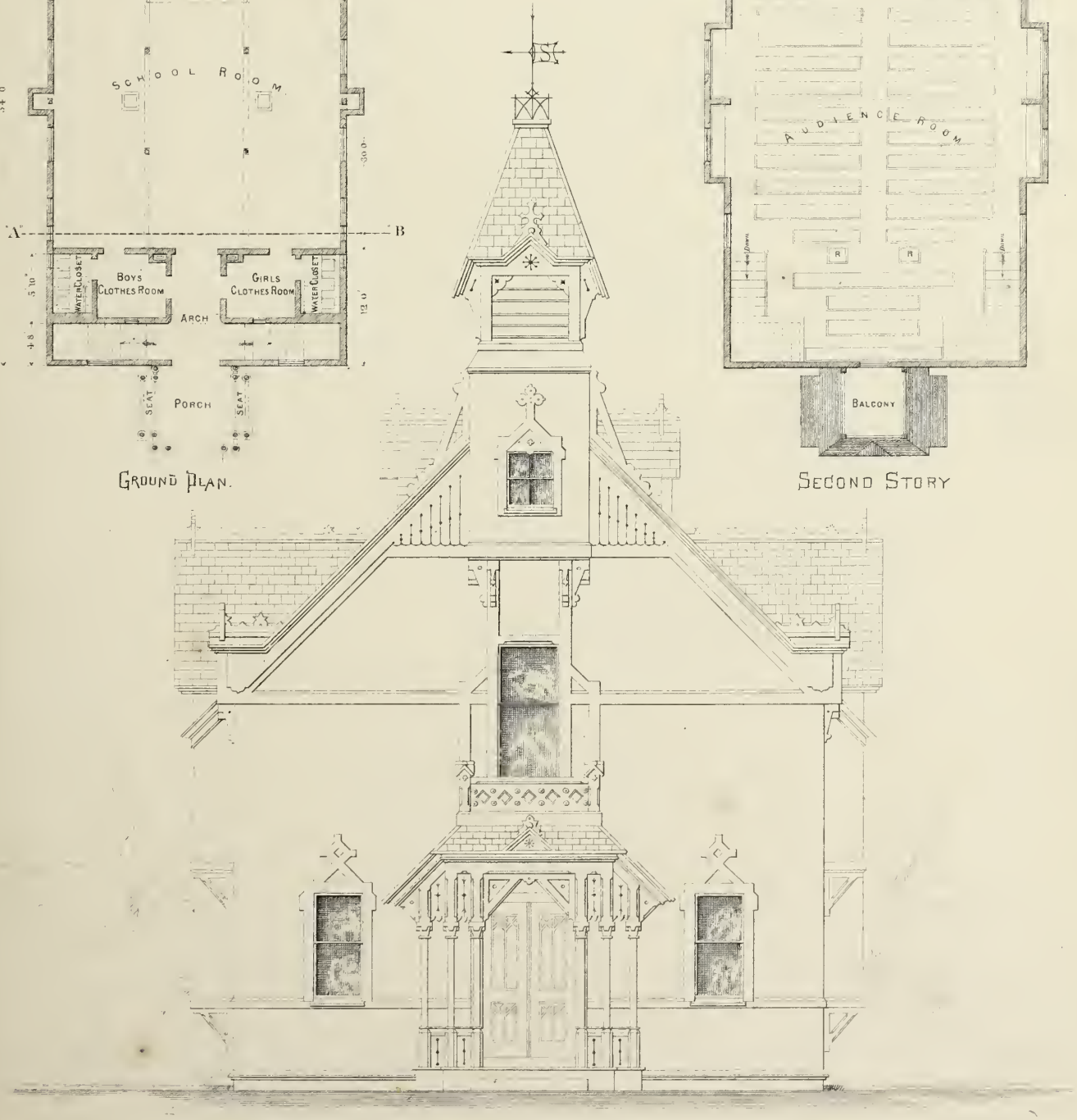
SCALE. 1/16 Inch to One Foot.



GROUND PLAN.



SECOND STORY

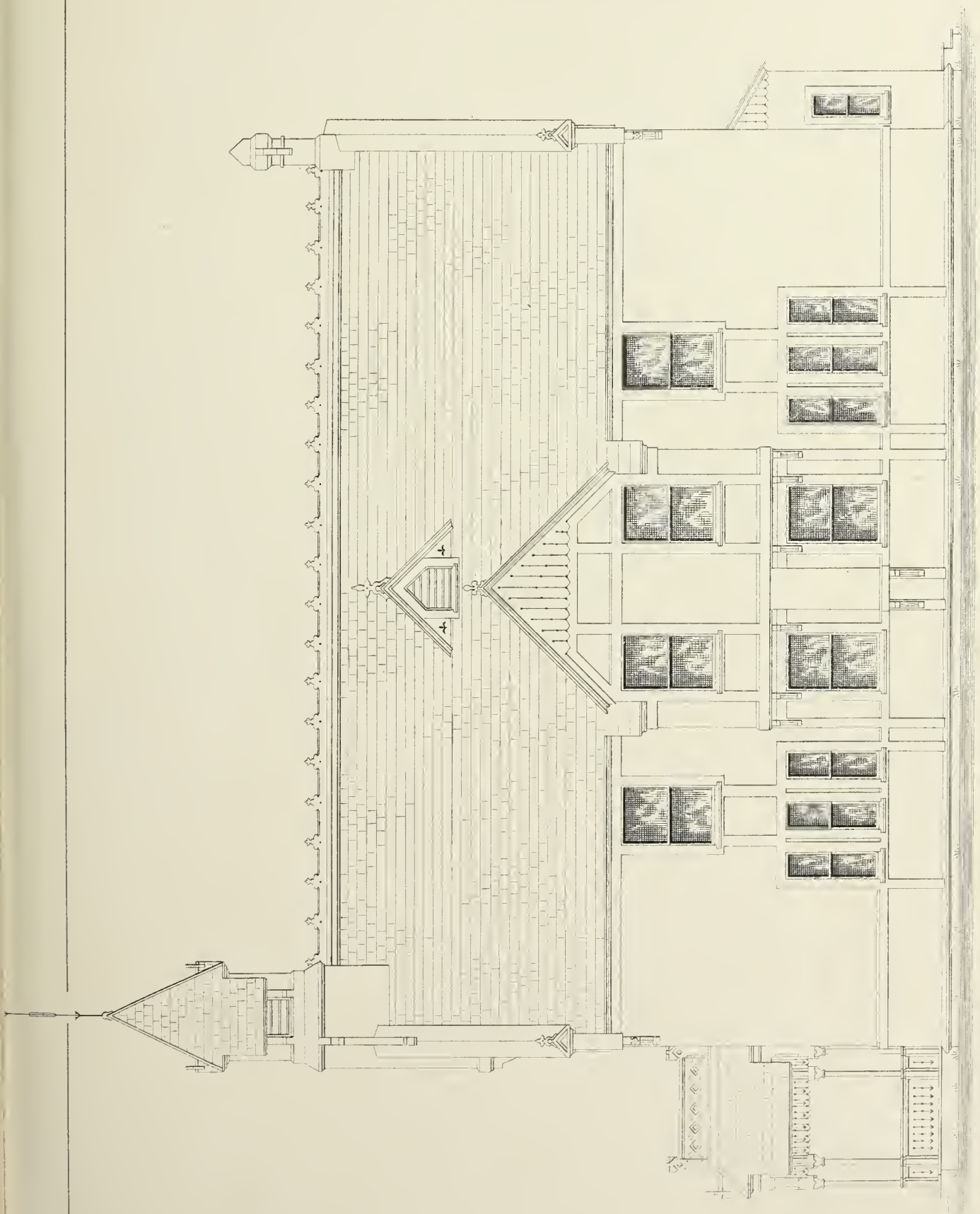


FRONT ELEVATION.

SCALE. 1/8 Inch to One Foot

Design No. 9.

Plate No. 37.

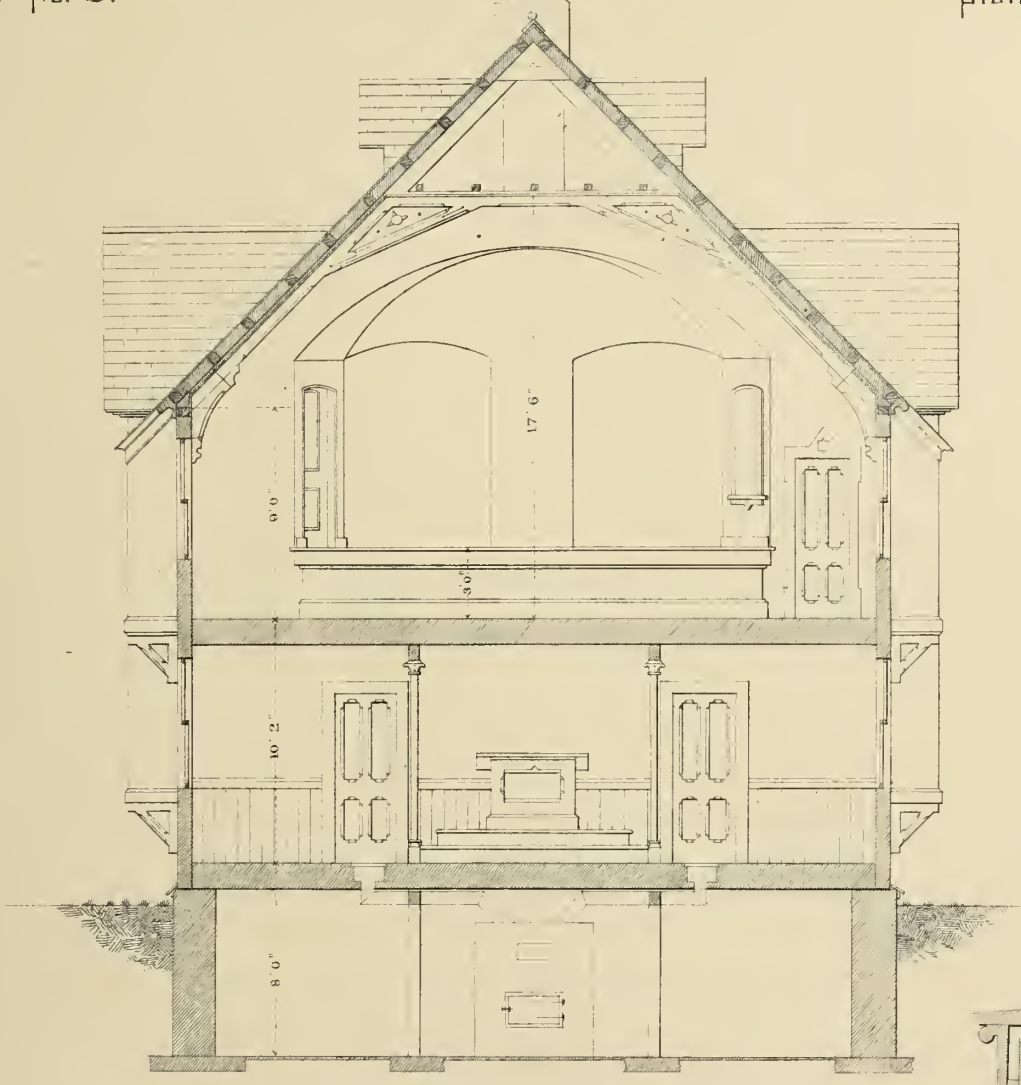


Side Elevation.

Scale. 1/2 Inch to One Foot.

Design No. 9.

Plate No. 38.

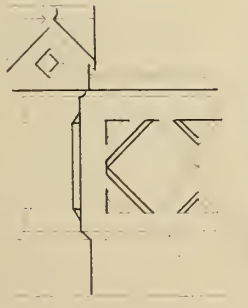


TRANSVERSE SECTION THROUGH LINE "A" "B"

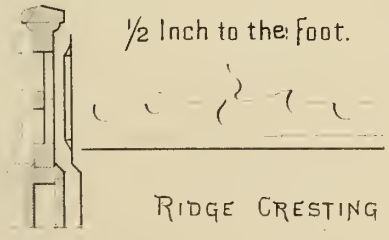
SCALE. ⅛ Inch to One Foot.

DETAILS

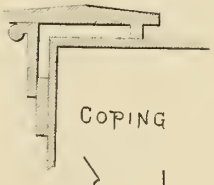
½ Inch to the Foot.



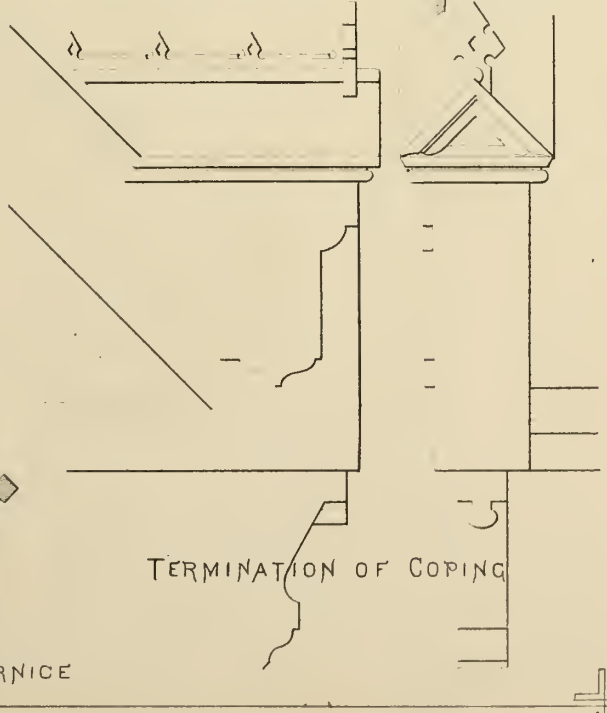
BALCONY POST AND RAILING



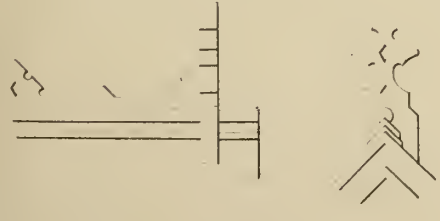
RIDGE CRESTING



COPING



TERMINATION OF COPING

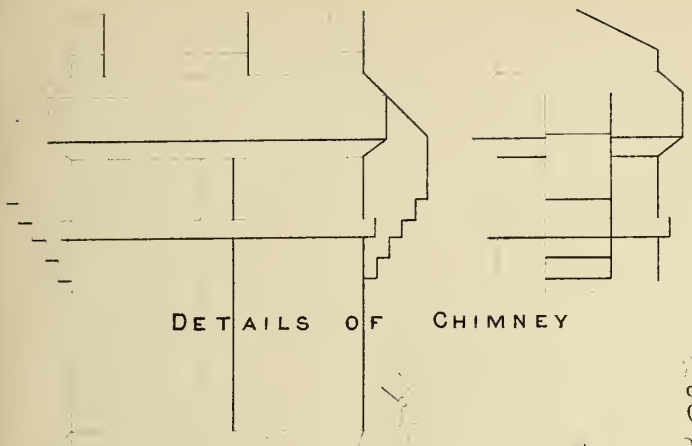


FINIAL AND CRESTING TO GABLES

EAVE CORNICE

Details

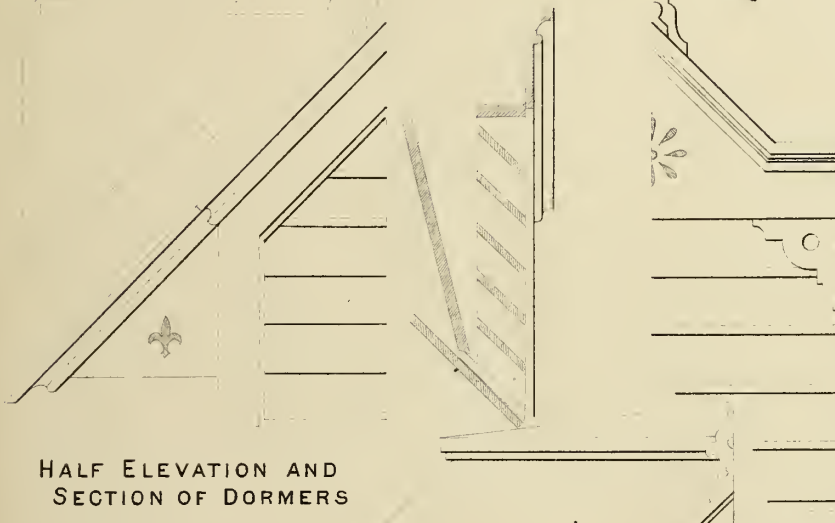
½ Inch to the Foot.



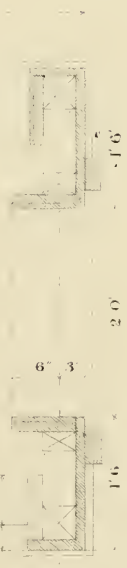
Details of Chimney

Angle in Ceiling Interior

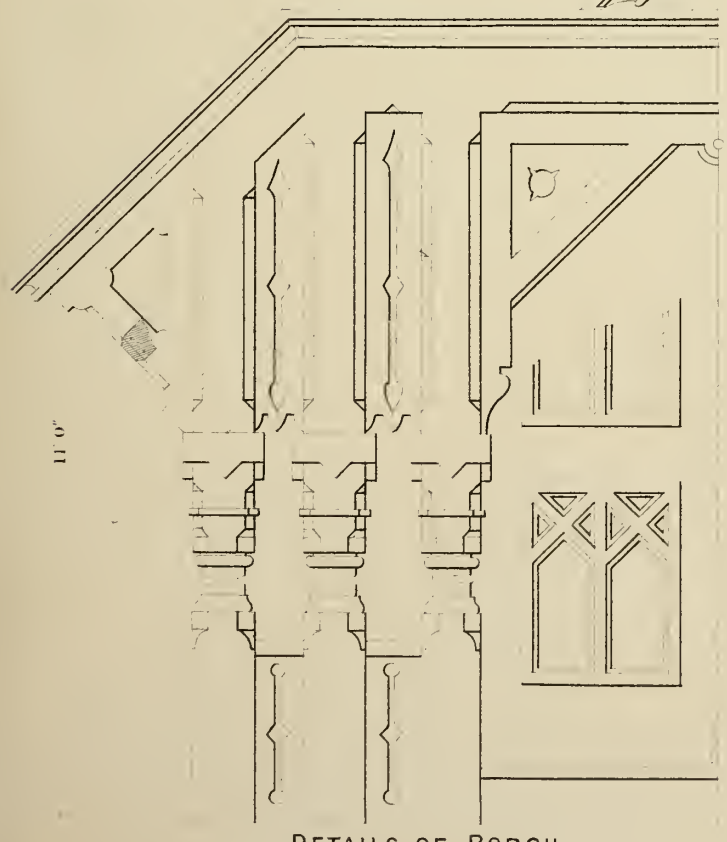
Window in Base of Belfry



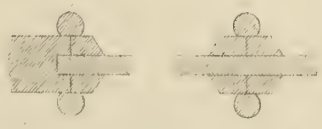
Half Elevation and Section of Dormers



Half Section of Belfry



Details of Porch



Mouldings &c. Principal Door
1/8th Full Size

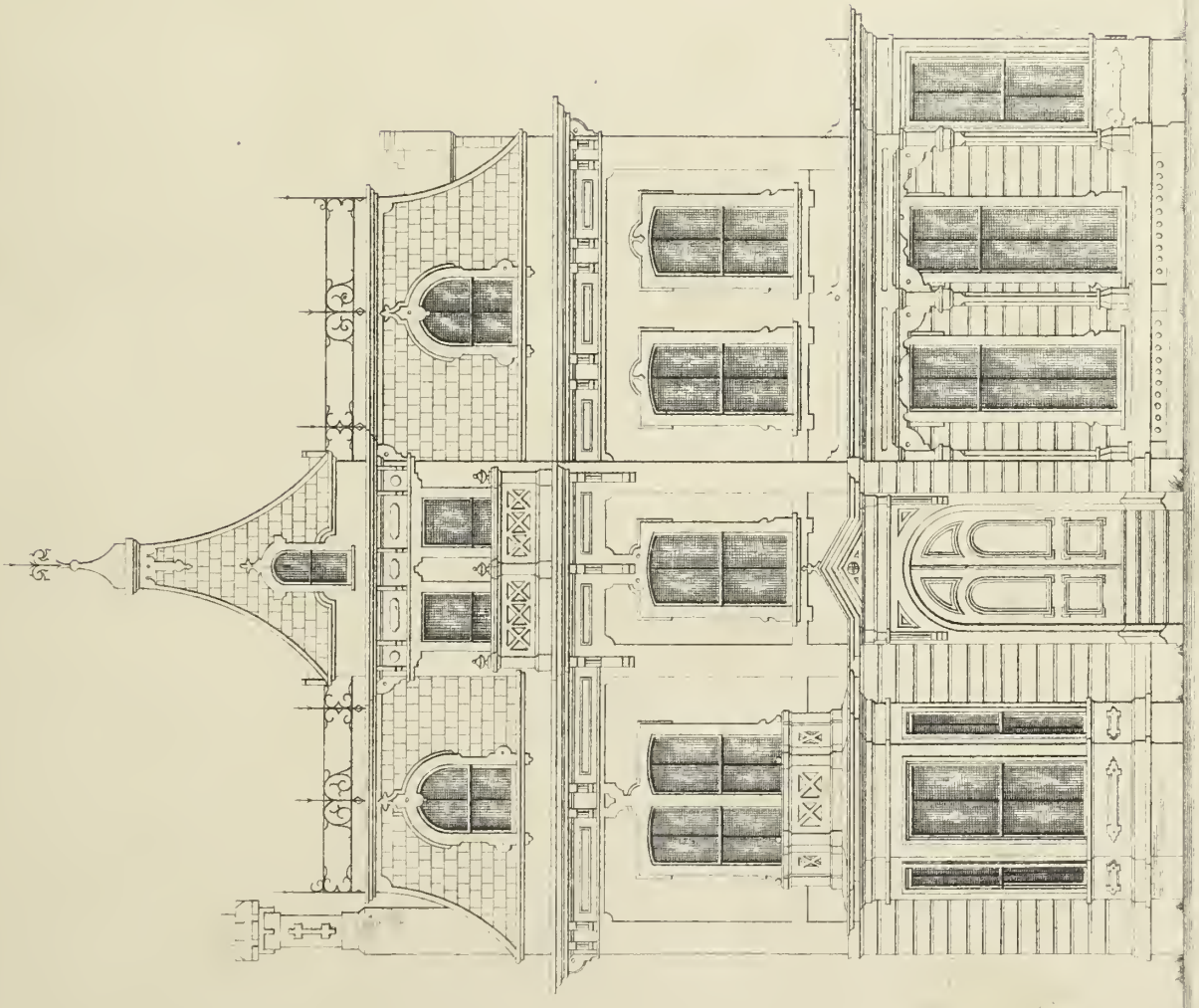
Design No. 10.

Plate No. 40.

Eng & print by KORFF BROTHERS

Design No. 10

Plate No. 41.

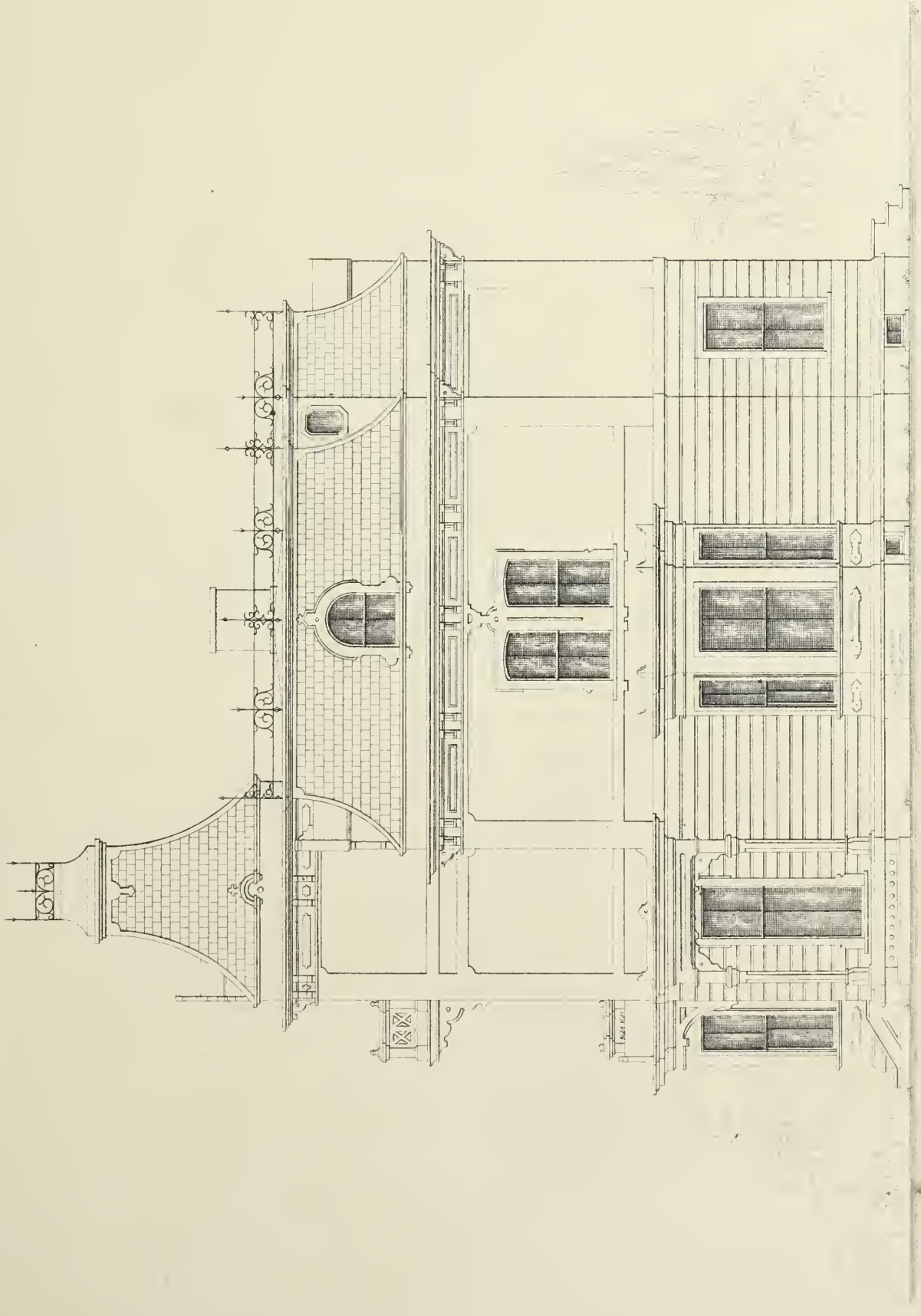


FRONT ELEVATION.

SCALE 1/8 Inch to One Foot

Design No. 10.

Plate No. 42.



SIDE ELEVATION

SCALE 1/8 Inch to One Foot

Design No. 10.

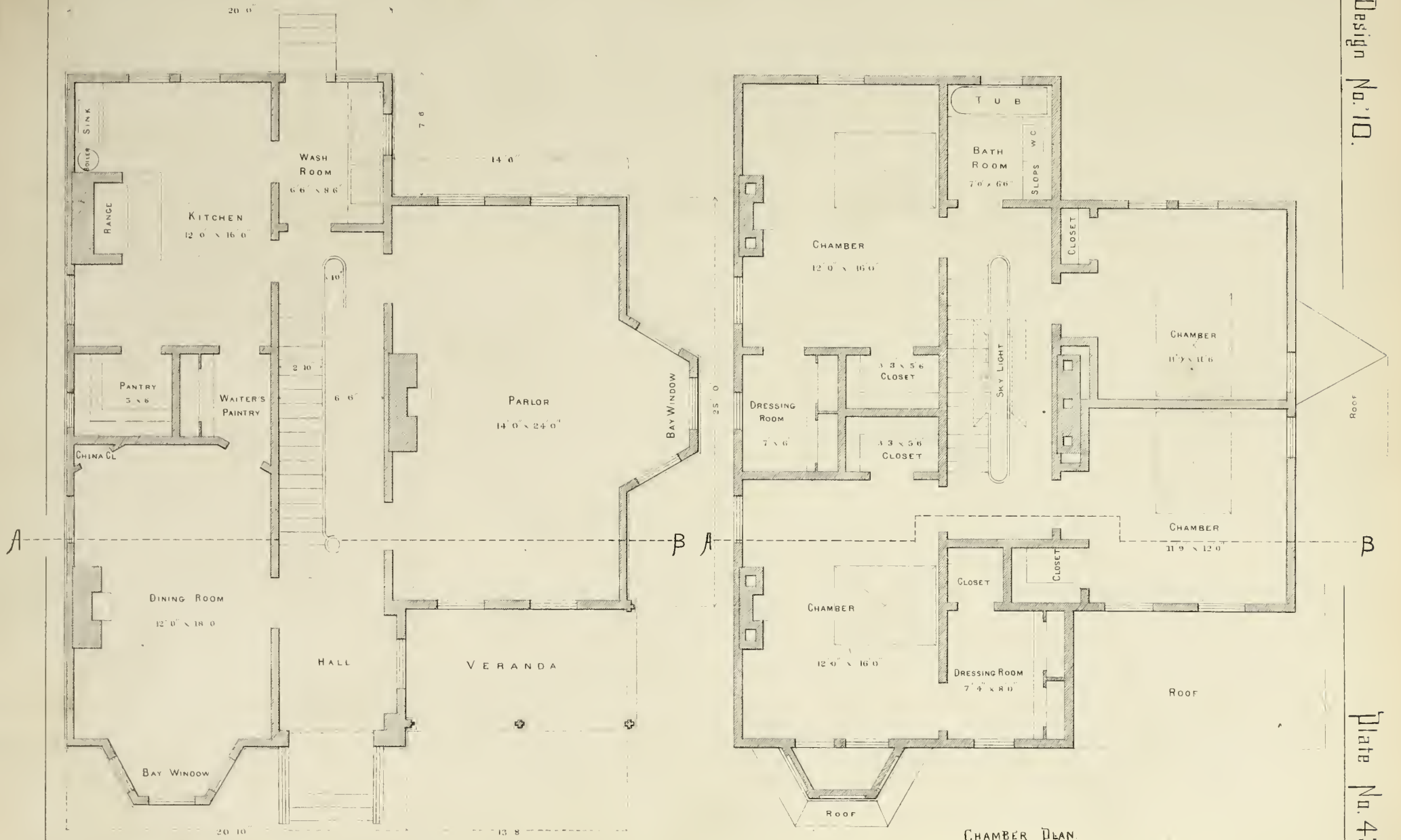
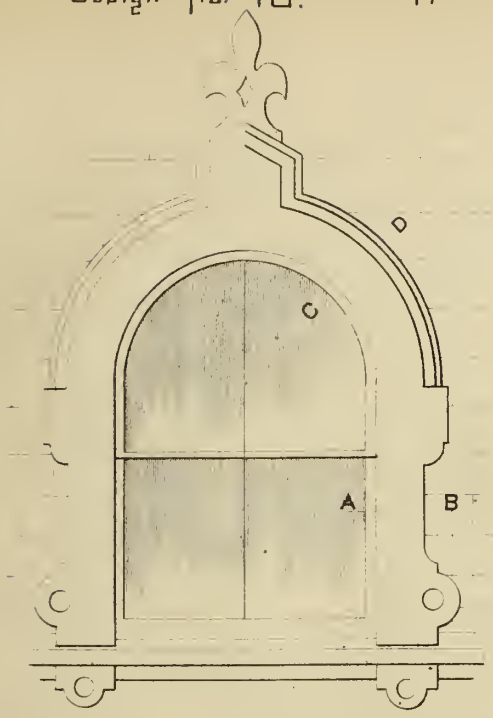


Plate No. 43.

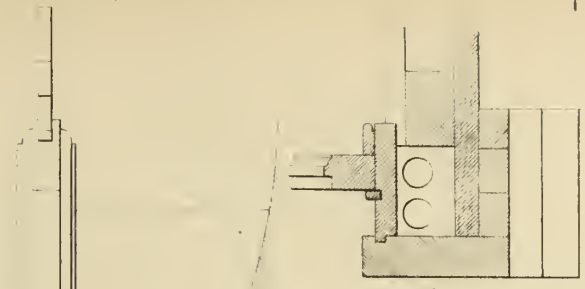
Design No. 10.

Plate No. 44

SECTION
THROUGH LINE "A" "B".
SCALE. 8 Feet to One Inch

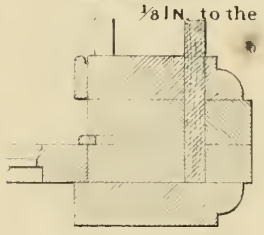


LUTHERN WINDOW IN MAIN ROOF



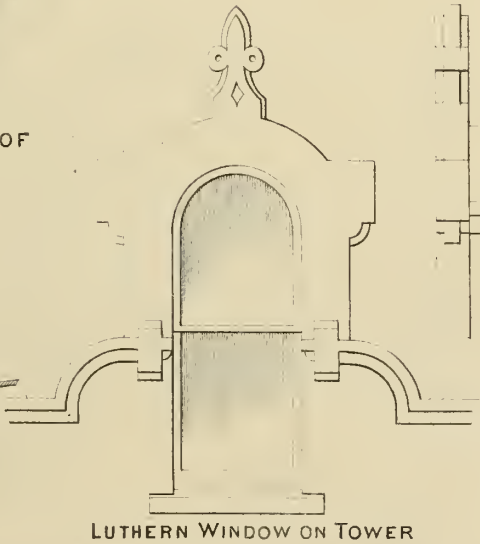
SECTION LINE AB

⅛ IN. to the INCH

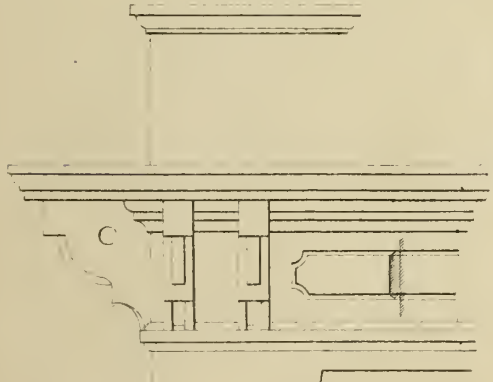


SECTION LINE CD

SECTION LINE E.F.

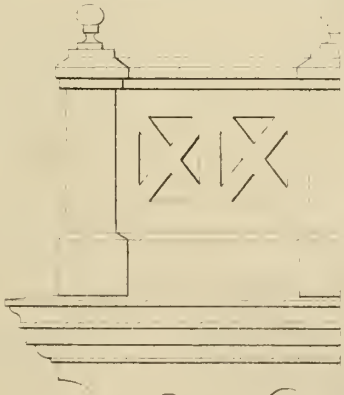


LUTHERN WINDOW ON TOWER



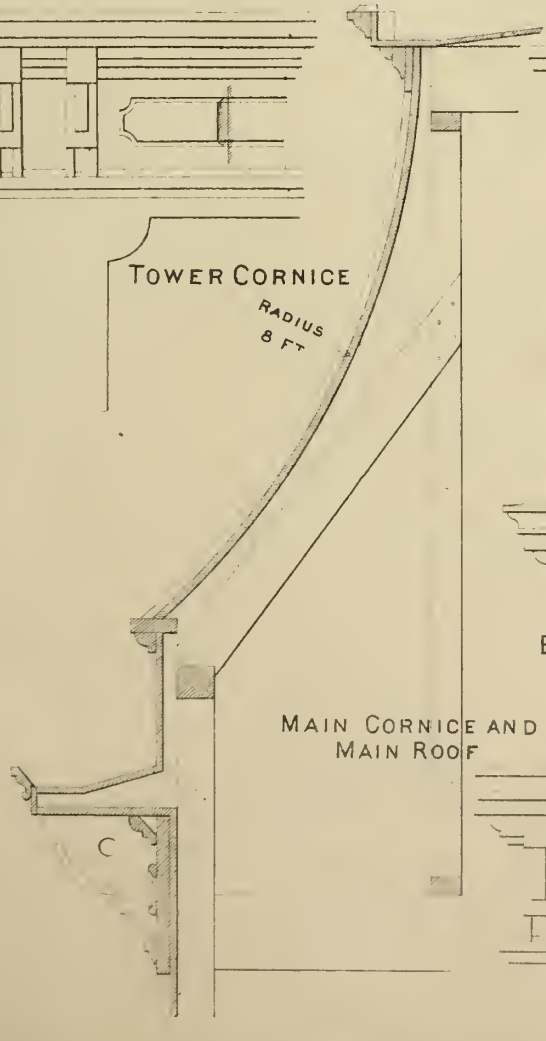
TOWER CORNICE

RADIUS 8 FT



BALCONY

4" thick



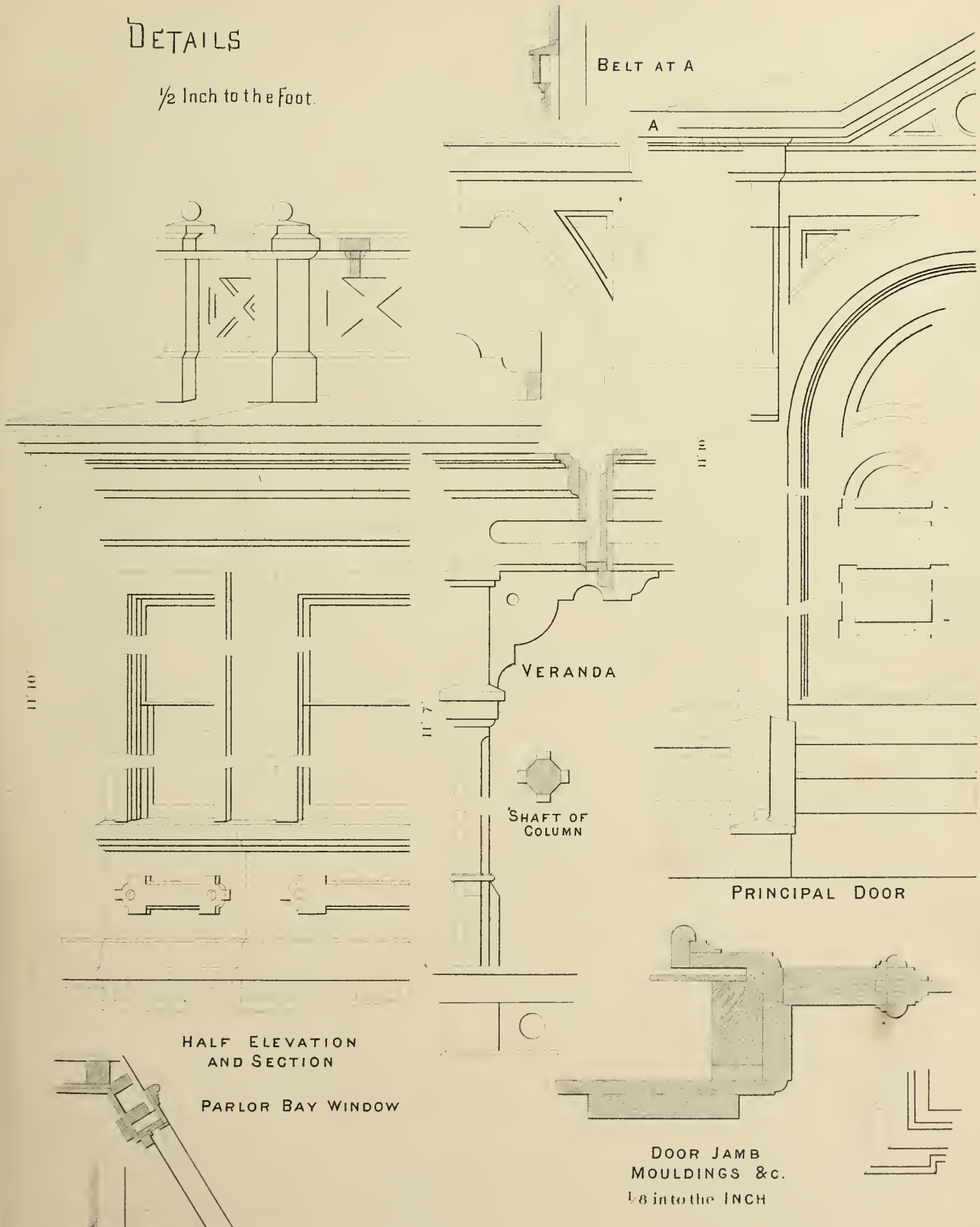
MAIN CORNICE AND MAIN ROOF

RADIUS 10 FT

TOWER ROOF

DETAILS

½ Inch to the Foot.



DESIGN No. 10.

CARPENTERS' SPECIFICATION.

DIMENSIONS. General dimensions, height of stories, and internal arrangement to be obtained from the drawings.

MATERIALS. Furnish all the materials the best of their several kinds; the lumber of white pine when not otherwise specified, well-seasoned and dry.

Sashes and panel work in all cases to be of perfectly clear lumber.

TIMBERING.

Furnish the following timber of white pine.

Sills, 4×8 inches, laid on the flat and halved together at the angles.

Angle-posts, 4×6 inches. Intermediate posts 4×4 inches, spiked to the sills.

Girts (first one above the sills), 4×4 inches, spiked to the posts and studs.

2d Girt (above sills), 7×1 inch gained into the studs and posts.

Wall and steep roof plates 4×4 inches.

Girders in cellar, 5×5 inches.

1st and 3d tier of beams, 9×2 inches. 16 inches from centres.

2d tier of beams, 10×2 inches. " "

Steep pitch rafters, 2×6 inches. " "

Flat rafters and tie beams or ceiling joist, 8×2. 2 feet from centres.

Hip and valley rafters, 9×3 inches.

Carriage beams and headers 4 inches thick.

Ridge plates of flat roofs, 9×1 inch.

Also furnish the following of Hemlock :

Nailing joist (through 1st story), 5×2 inches. 16 inches from centres.

" " (above ") 4×2 " " "

Braces (long,) 4×4 inches, nailed in barefoot.

" (short) 4×3 " " "

Studs supporting ridge plate, 4×2 inches. 16 inches from centres.

BRIDGING. Cut in two rows of cross bridging in each tier of beams.

All the above timber to be perfectly sound, square-edged straight timber, free from all imperfections impairing its durability or strength. Also, furnish, of like quality, timber for the

PIAZZA of the following sizes:

Sills and cross sills (at each post), 4×6 inches.

Floor joist, 6×2 inches, 2 feet from centres.

Plates, 8×4 inches. Rafters, 6×2 inches.

Furnish the required substantial frame for the front platform and steps.

Furnish any other timber required by the design of the requisite size and quality.

FRAMING. Execute all the framing in the most thoroughly workmanlike manner, substantially and firmly spiked together in the style known as "Balloon" framing.

Double the floor beams under bearing partitions.

Supply and use anchors and anchoring strips if found requisite.

EXTERIOR WORK.

ROOFING Cover the Roofs with sound matched roofing boards, joints broken when practicable, and nail securely twice to each bearing. Case up neatly the gutters as per drawings.

TINNING. Cover the flat roof and dormers, and line the gutters with the best quality of charcoal roofing tin, the tin to extend well up into the brick-work of the chimney, and under and behind the siding with which it forms a joint. Convey the water from the gutters down to the grade level through the required number of XX tin leaders, firmly secured to the building with galvanized iron holdfasts.

SLATING. Cover the steep pitch roofs and the hood over front door with the best quality of purple slate, 16 in. long, laid 6½ in. to the weather.

Put zinc step flashings around the chimneys and dormers.

Case for a scuttle 2 × 3 feet in size in roof of flat where directed, and furnish with strong tongued plank cover, tinned, hung on butt hinges, and fastened with hook and staple.

Trim for a sky-light with 2-in. plank cheeks rebated to receive the sash.

Case up and mould the cresting surmounting tower, also the gutter cornice mould of flat roof and the hip angle boards, all as per detail and elevation drawings.

DORMERS, CORNICES, ETC. Build the dormer windows in all respects as shown by the scale and detail drawings, also the moulded sill courses, cornices, balconies, bay windows, piazza posts, brackets and cornice, string and belt courses, front door hood, water-table, etc.

The piazza ceiling and soffit of the door hood to be sheathed with clear narrow-tongued and beaded sheathing. Floor the piazzas with narrow 1¼-inch tongued boards not over 3½ inches wide, in one length and blind nailed, with white lead joints. Build the platform and steps in front with 1¼-inch strings and treads, and 1-inch risers and enclosed facias, surmounted with moulded capping, all as per scale and detail drawings. Put cove moulding under the tread nosings. Enclose below piazza floor down to the grade with facia, base, scroll-sawed panels, etc.

Build plain steps to rear outside entrance, as shown.

The panels in frieze of main cornice to be formed with raised mouldings.

Case the windows and doors with plain casings, sawed in form as shown, 1¼-inch thick, surmounted with 2-inch coved head bands.

The panels of tower cornice and of bay windows will be raised $1\frac{1}{4}$ inch with moulded edges.

Furnish the cresting for piazza and bay window roofs, scroll-sawed from $1\frac{1}{2}$-inch plank.

SIDE SHEATHING.

Sheath up all around the building with perfectly sound and nearly clear $\frac{7}{8}$-inch boards.

To be as nearly 8 inches in width as will conform in courses to the top and bottom of window frames, etc., all tongued and rebated from the top of water-table to the belt course level with the piazza and bay window cornices.

Furnish the windows with $2\frac{1}{2}$-inch rebated sills.

Sheath the sides of the building all around above the belt course with narrow tongued sheathing, not exceeding $4\frac{1}{2}$-inch width, flush joints.

Form gutters in the piazza roof.

Furnish small scroll-sawed finials and corbels to tower windows, etc., as shown.

Furnish any other outside trimmings required by the design.

Floor over the tin roof of front bay window with narrow framed $1\frac{1}{4}$-in. slats, $\frac{1}{2}$ inch apart, firred up clear from the tin roof.

FLOORING.

Lay the attic floor with 8×1-inch sound tongued lumber, well nailed through the top.

Lay the 1st and 2d story floors with perfectly sound tongued boards $3\frac{1}{2}$ to $4\frac{1}{2} \times 1$-in, blind-nailed.

Flush off the joints of the floors throughout with the plane.

Cut in $2 \times \frac{1}{2}$-in borders around all the hearths.

Put down hard-wood saddles to all the doors.

PARTITIONS AND FIRRING.

Cross fir the 1st story ceiling with 2×1-inch strips, 12 inches from centres.

Firr down the closet ceilings to a clear height of eight feet.

Cross firr the attic ceiling with 2 × 1-inch strips, 16 inches from centres.

Firr off the small rectangular dome over stairway, as shown by the plans and detail drawings.

Firr out from the steep pitch rafters to form the curved slope of the roof, with 1½-inch plank, sawed to the required form, also for the main cornices, as shown.

Do any other firring that the design requires.

Set all the partitions that support beams with 2 × 4-inch hemlock, 12 inches from centres, with 4 × 3-inch plates (square-edged, straight and sound) and 4 × 3-inch sills. Set all other partitions with 4 × 2-inch hemlock, 16 inches from centres. Set up the necessary studs and plates from ceiling joist in attic to support flat rafters.

Bridge all the partitions once in their height.

Form all the angles in partitions solid, and set the door studs double.

Set grounds to all openings and leave on.

CRESTING. Provide the steep roof ridge with iron cresting as per elevation. Also furnish the iron finials and crestings on tower roof.

STAIRS.

Build the cellar flight of stairs with 1½-inch strings and 1¼-inch treads, planed up and grooved together. Provide with pine slat rail through the cellar, and enclose in the 1st story with plastered partition, with door at the head.

Build the principal flight of stairs, extending from first story to attic, with 1¼-inch strings and treads, and 1-inch risers and facias, the steps front and back tongued. Mould the nosings and the front string.

Mould the wall string on top to correspond with the base in the hall.

Support the whole on 7 × 2-inch timbers, rough bracketed to each tread.

Surmount the whole with 3 × 4½-inch compound moulded rail, 2-inch fancy turned balusters, and supply an 8-inch octagon veneered newel at

the start. The rail, balusters and newel to be of black walnut, well rubbed down with oil, and finished with shellac.

Plane up and groove together a neat step ladder to the scuttle.

WINDOWS AND GLAZING.

Make the cellar window frames with two 2-inch plank, rebated for the sash. The sash to be $1\frac{1}{2}$-inch thick, hinged at the top, and be fastened up and down with iron buttons.

Make the two small frames in rear of attic hall in a similar manner, with sash hung on hinges to open sideways; fasten as above described.

Make the attic front windows and the front parlor windows for hinging the lower casement, in the French manner—the upper to be hung,

All the windows, not otherwise above specified, to be provided with the usual box frames, and double hung sash, with 2-inch patent axle pulleys and best hemp cord. All the sash, except attic and cellar, to be $1\frac{3}{4}$-inch thick, and all to be made in the best manner, with weather lipped meeting rails. All other window sash throughout to be $1\frac{1}{2}$-inch thick.

Glaze all the windows with the best quality of English sheet glass.

Style of sash, number of lights, etc., to be as shown upon the drawings.

Furnish an hipped sky-light of the best water-tight construction, placed over the dome. Glaze with corrugated glass.

Fasten all the window sash with the most approved style of sash fastenings, corresponding in finish with the neighboring door and bell furniture.

DOORS, Etc.

Make the front doors $2\frac{1}{4}$-inch thick, paneled as per elevation and detail drawings, with raised mouldings.

Glaze the centre panels with the best quality of enameled glass of such pattern as the owner may select.

Make the first story principal room doors $1\frac{3}{4}$-inch thick and six panels

each, and all other room doors 1½-inch thick and four panels each, all to be faced with mouldings.

Make the door opening from main hall to wash-room a sash-door, glazed above with enameled glass, and paneled below to correspond with the neighboring solid doors.

HINGING. Hang all the doors on butt hinges of the most approved manufacture and the required size.

LOCKS. Fasten the cellar and attic doors with rim locks, and all other doors throughout with mortice locks of the best city manufacture. Extra size lock with night-latch apparatus, to be placed on the front door.

BOLTS. Provide each outside door with strong malleable iron shove bolts, of appropriate finish; tail bolts for the double doors.

FURNITURE. Bronze metallic furniture to be used throughout the principal rooms and hall of the first story, white porcelain in the second story, and dark mineral elsewhere throughout.

BELLS. Fit up with copper wire in zinc tubes the following bells:

One pull from front door to kitchen.
One " " parlor "
One " " dining-room "
One " " each chamber "
One " " one " in 2d story to servants' room in attic.

The furniture of the pulls to correspond with the neighboring door furniture.

INSIDE FINISH.

Trim the doors and windows throughout the principal rooms and hall of first story with 6½-inch moulded and banded architraves, and put down 8½-in × 1½-inch moulded base.

Trim the second story throughout with 1-in moulded architraves, and put down 7-inch plain neck-moulded base. Elsewhere throughout trim with 4½-inch plain chamfered and beaded architraves, and (except in kitchen) put down 6-inch chamfered base.

Insert the foot of the base into ogee moulded carpet strips, rebated ½-inch to receive it.

Trim the windows in parlor and dining-room, and principal rooms in second story (including dressing-room), down to the floor with framed moulded and panel backs.

Trim all other windows throughout (above the cellar) with nosing sills and moulded aprons.

CUTTING, ETC. Do all necessary cutting away for and repairing after the plumbers, gas-fitters, bell-hangers, hot-air workmen and others, and afford them all the usual facilities for the prosecution of their work. Screw down the floors over gas-pipes, etc.

BATH-ROOM. Case up the bath-tub as per plan, and panel the front. Trim the wall over the tub with a neat surbase 8 inches in height.

Fit up the water-closet with 1¼-inch seats, riser, and brass hinged flap. Fit up the slop-basin in a similar manner. The fittings to be of black walnut throughout.

PANTRIES. Fit up the kitchen and waiters' pantries as indicated on the plans, with shelves and dovetailed drawers. The shelves in waiters' pantry to be enclosed with panel doors fastened with cupboard locks, and all the drawers to have drawer locks.

WARDROBES, CLOSETS, ETC. Fit up the dressing-rooms with wardrobes enclosed with panel doors, with low foot drawers below. The doors and drawers fastened as above.

Fit up the closets with top shelves as indicated on the plans, and in these and the wardrobes put up the required number of double iron clothes hooks.

The shelves and hooks to be put up on neat moulded cleats, the whole of clear stuff.

WAINSCOT. Wainscot the walls of the kitchen and wash-room 3 feet in height with clear, narrow, beaded, vertical sheathing, neatly capped.

WOODEN MANTEL. Put up a neat wooden mantel, of marble pattern, in the large attic bed-room.

OUTSIDE BLINDS. Provide all the windows, except those of cellar and attic, with plain, neat Venetian blinds, in two and three panels each as their size requires, furnished with narrow rolling slats. Hang on the best blind hinges, and fasten with the most approved patent fastening.

FENCE. Build a fence across the rear and on one side of the lot, from the rear to the front house line, extending in all a distance of 145 feet, with squared chestnut posts set 3 feet 6 inches in the ground, and covered 7 feet high with sound merchantable mill-worked fence boards, neatly capped.

WASH-TRAY. Fit up the wash-trays in wash-room with 2-inch plank and $1\frac{1}{4}$-inch hinged plank cover, planed up and put together with white lead joints.

PAINTING.

Properly stop and otherwise prepare for and paint all the planed wood work outside and inside of the building, and upon the premises that it is customary and usual to paint, (including the piazza floor and outside steps, the iron cresting, and the cutting in of the stairs), three good coats of the best American white lead and oil paint.

Paint the kitchen fire-place, the chimney shafts where exposed to exterior view, and the outside of the brick underpinning two coats.

Paint the tin-work of the roofs two good coats of the best metallic roof paint. Finish the roofs of the dormers, imitating the color of the slate.

Paint the fence one good heavy coat of ochre, colored as directed.

Finish all other portions of the work in color as directed.

Grain the wood-work of the kitchen and wash-room in imitation of light oak, and varnish one good coat.

GAS PIPES. Put in all the required gas pipes ready for the fitters. The work to be done in accordance with the requirements and regulations of the Brooklyn Gas Light Company.

GENERAL SUMMARY. All the work to be executed in the best manner, and to the entire satisfaction of the Architect. The materials to be the best quality of their several kinds, when not otherwise specified.

Execute any and all further carpenter work necessary to fully complete the building fit and ready for occupation, which may be shown by, or is to be reasonably inferred from, the drawings, though not herein specified.

Remove all carpenters' waste material and rubbish from the premises at the completion; scrub the floors and wash the windows.

DESIGN No. 10.

MASONS' SPECIFICATION.

EXCAVATION. Remove the top soil at the commencement, and replace it over the graded surface at the completion.

Excavate for a cellar under the entire building as shown on cellar plan, the depth figured on the section; also, excavate 3 feet 6 inches deep for the piers supporting piazza posts, and the sills of front steps. Grade off the earth around the building, or remove it from the premises, as may be directed by the owner.

STONE WALLS. Build the cellar walls of good flat building stone 20 inches thick, laid in hydraulic ground lime and clean sharp sand mortar. Build foundations for the chimneys, piazza and step piers in a similar manner. Put down concrete footings 8 inches deep, and extending in width at least 6 inches beyond the thickness of the walls on each side, under all the walls of the building; the concrete composed of small broken stone, gravel, sand and cement, in the usual proportions.

Build both sides of the stone walls by and full to a line, finish in height level with the grade, and properly flush and point the inner face at the completion.

Put flat stone foundations under the cellar piers supporting girder.

BRICK WORK. From the top of the stone walls at the grade level build a brick wall 12 inches thick and 7 courses in height. The wall to be flush on the inner face with the stone wall below.

Build the chimneys and cellar ash pit as per plans. Carry up the flues of uniform size and smoothly pargetted throughout. A ventilating flue with register opening near the ceiling line in kitchen to be carried up in the rear stack, between the two smoke flues.

The two flank chimneys to be topped out above the roof as per elevation and detail drawings, the remaining one on the ridge to top out plain.

Build the girder piers in cellar 12 inches square and cap with blue stone. Build the piers supporting piazza posts 8 inches square.

All the above-mentioned brick work to be executed with the best hard-burnt common brick laid up wet, with hydraulic ground lime and clean sharp sand mortar. Face the topping out of the chimneys, the throat, breast and jambs of the kitchen fire-place, and the exterior of the cellar walls, with selected, perfectly formed brick, the joints flushed full and rubbed preparatory to painting.

Turn trimmer arches against all the hearths, and furnish all the required rough brick, mortar and plaster for setting the hearths, grates, mantels and range.

COAL SLIDE. Build the coal slide shown; line with smooth flag, provide with flag cover with round iron movable grating fastened with chain, staple and padlock.

NOGGING. Fill in the entire frame below the attic floor with pale brick on edge laid in mortar with the joints flushed full.

CONCRETE FLOOR. Cover the cellar floor flush and smooth throughout, 3 inches deep with concrete in the usual manner.

BLUE STONE. Provide the cellar windows with blue stone sills 4 inches rise, 5 inches bed and the required length. Furnish the kitchen fire-place with rubbed blue stone hearth of the size shown on the plans, and not less than $3\frac{1}{2}$ inches thick. Provide smooth dressed flags, 2 feet in width by the required length, and bed in sand at the foot of the front and rear outside steps.

Lath the cellar ceiling and plaster one good coat.

Lath the walls and ceilings of the 1st and 2d stories throughout, and the attic hall and front bed room, and plaster three coats; scratch, brown and hard-finish with the best materials.

Finish off a neat plain dome over main stairway, with small mouldings at the angles; the size indicated on the plans.

Run moulded cornices of about 7 inches rise and 10 inches projection in the parlor and dining-room, and 5 inches rise and 8 inches projection in the halls and in 2d story principal rooms.

Put up neat centre-pieces of such pattern as the owner may select, of appropriate size, in the parlor, main hall and dining-room.

The plastering in the kitchen and wash-room to extend down to the grounds of the wainscot capping; in all other cases, to extend down to the floors and up to the grounds of the openings.

The walls in all cases to be finished plumb and the ceilings level, the angles to be maintained sharp and regular in line.

Do all necessary patching and mending made necessary by the plumbers, gas-fitters, bell-hangers and other workmen.

STONE LINTEL. Provide the kitchen fire-place with rubbed stone lintel of 8 inches rise and 4 inches bed by the required length.

CESS-POOL. Stone up where directed a cess-pool of 3 feet diameter and 12 feet deep, to receive the drainage from the house and the discharge from the roof leaders. Make the necessary connections to the building for that purpose through 6 inch vitrified or cement drain pipe, laid below the action of the frost and properly trapped.

CLEANSING, &C. Remove all rubbish and waste material from the premises that may have been accumulated by the Mason during the progress of the work, and leave building and premises broom clean at the completion.

GENERAL SUMMARY. Any Masons' work not herein specified, and necessary to complete the work in accordance with a fair and reasonable interpretation of the drawings as to their true meaning and intent, is to be executed by the contractor with-

out extra charge, not, of course, including any alterations from or additions to the present design.

The entire work to be executed in the best and and most workmanlike manner, to the entire satisfaction of the Architect.

MEMORANDA OF PAYMENTS ON CONTRACT.

(1). 10 PR. CT. When the entire frame of the building is raised, ready for the roof plank.

(2). 15 " " " building is enclosed, the roof on, and chimneys topped out.

(3). 20 " " " floors are laid, partitions set, brown coat on, and piazza and fences up.

(4). 20 " " " plastering is completed, with cornices, &c., run, exterior work finished and painted, and rough plumbing in.

(5). 35 " " " whole is completed and this contract fulfilled.

DESIGN No. 10.

PLUMBERS' SPECIFICATION.

IRON SOIL PIPE. From the earthen drain-pipe connected with cesspool, extend within the cellar, and from thence up to the water-closet in second story, with a 4-inch cast-iron soil pipe, connected with the closet with 3-inch lead soil pipe and trap. Put up this pipe with iron holdfasts, and caulk all the joints water-tight with lead.

SUPPLY PIPE. Tap, and pay for tapping the Ridgewood main, and connect, through 1-inch extra strong lead pipe, with boiler in kitchen.

BOILER. Furnish, and set on iron stand in the kitchen, a 50-gallon copper boiler of the best construction, well hooked and soldered, and smoothly planished. Connect with the brass pipes of the water-back of the range, through one-inch copper pipes.

KITCHEN SINK. Furnish and put up a $30 \times 20 \times 6$ inch cast-iron sink in kitchen, where indicated on the plans, and supply it with hot and cold water through $\frac{5}{8}$-inch strong supply pipes, $\frac{5}{8}$-inch finished flange bibb cocks, 3-inch waste pipe, and 3-inch trap and brass trap screw. Furnish a lead branch and stopcock below the sink, for emptying the boiler.

WASH-TRAYS. Supply three wash-trays in wash room, as per plans, with hot and cold water through $\frac{5}{8}$-inch strong lead pipe and $\frac{5}{8}$-inch finished flange and thimble-tray draw cocks. Put in strainers, plugs and chains, and connect the over-flow of one tray with waste pipe. Supply with 3-inch main lead waste

pipe trapped and connected with the iron soil pipe, and connected with two-inch branch wastes from each tray.

FURNACE SUPPLY. Supply the furnace with cold water through ½-inch strong lead pipe, a 24×12×12 inch cistern, lined with four-pound lead, a four-pound copper ball and ball cock, and connect with the evaporator by a copper pipe.

WATER-CLOSET. Furnish, and set in the second story, where shown in the plans, a best-constructed pan closet, with white marble-pattern basin of Wedgewood-ware, enameled receiver, and silver-plated cup and handle. Provide with 24×14×14 inch cistern, lined with four-pound sheet lead, and furnished with box, valve, wire, five-pound copper ball, ball cock, etc., complete. Make the closet trap of 6-pound sheet lead.

SLOP SINK. By the side of water closet, furnish and fit up a best-ware slop-basin, properly supplied with water and cock, and wasted through 3-inch trapped waste pipe.

BATH. Furnish and put up in second story, as per plans, an eighteen-ounce sheet copper bath tub, tinned and planished, and supply with hot and cold water through ⅝-inch strong lead pipe, ⅝-inch silver plated flange cocks, and put in 1½-inch waste, properly trapped. Provide with silver-plated plug and chain.

STOP COCKS, ETC. Put in all necessary stop cocks that may be requisite or directed. Properly trap and grade all the pipes. Furnish all pipe necessary to supply, empty and connect the several works.

RANGE. Furnish, and set in kitchen fireplace, a No. 2 Knickerbocker range, with water-back, etc., complete.

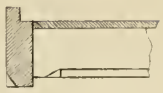
WORKMANSHIP. The whole of the work to be done in the best manner known to the trade.

Design No. 12.

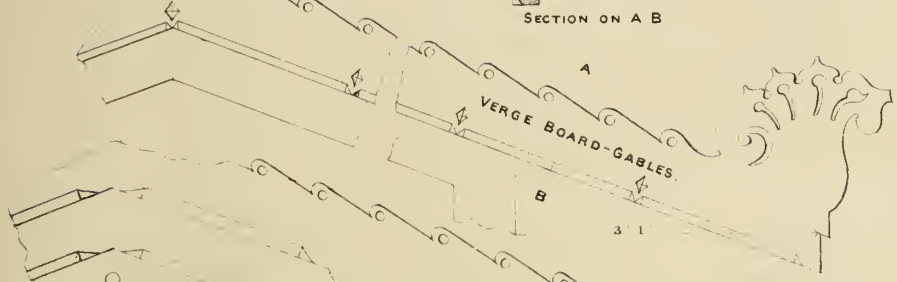
Plate No. 55.

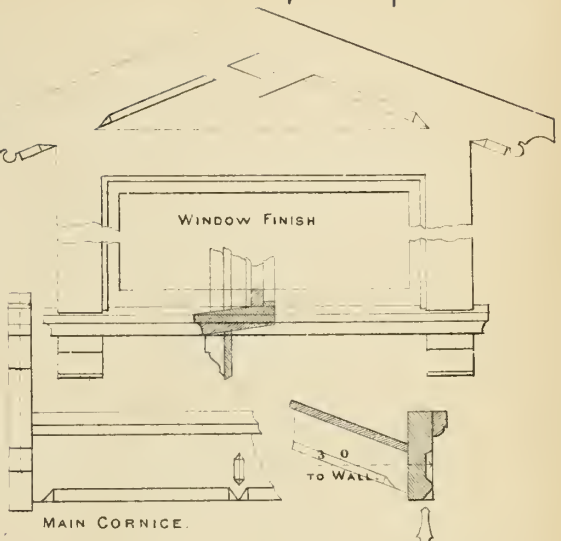
Details

½ Inch to One Foot.

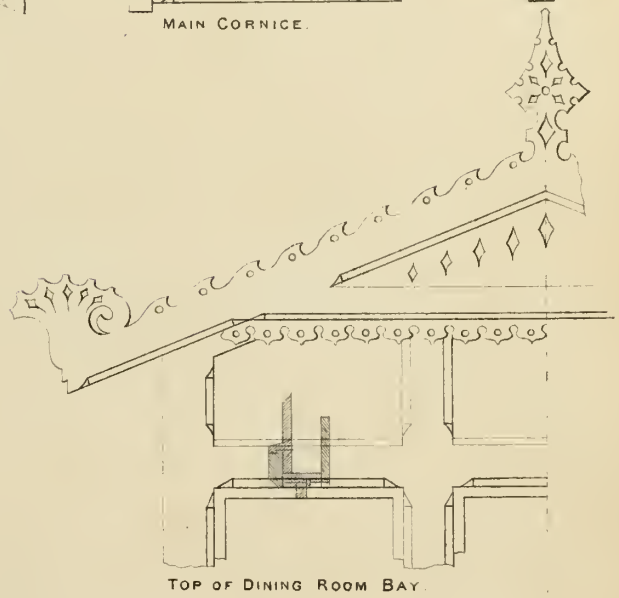


Section on A B

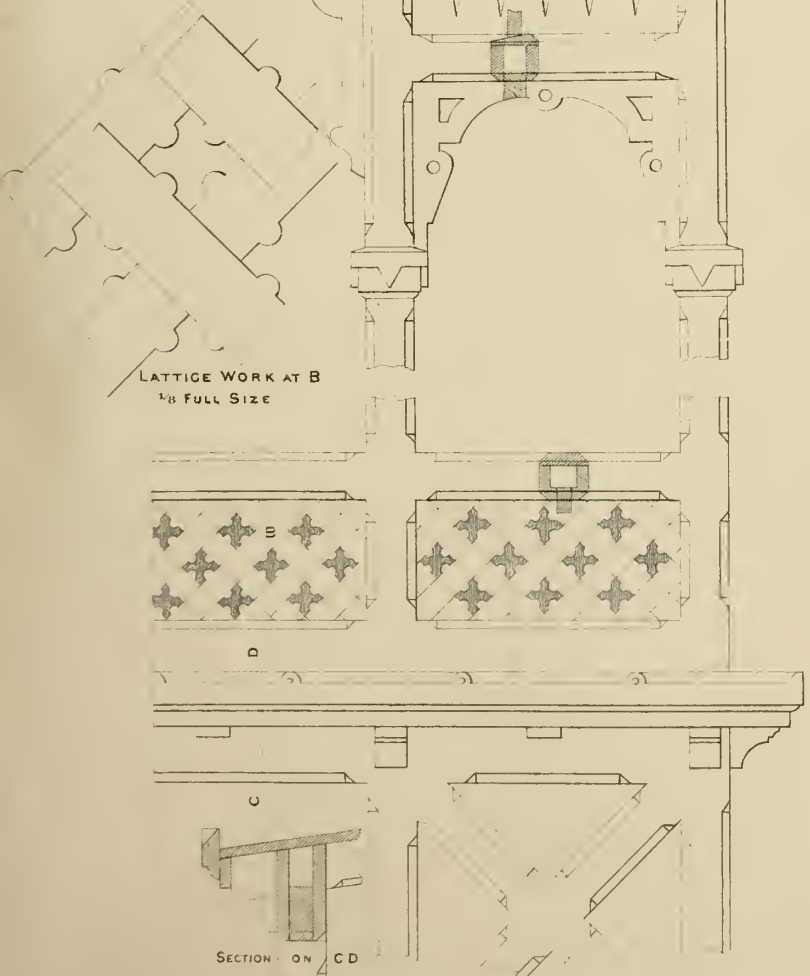




Main Cornice.



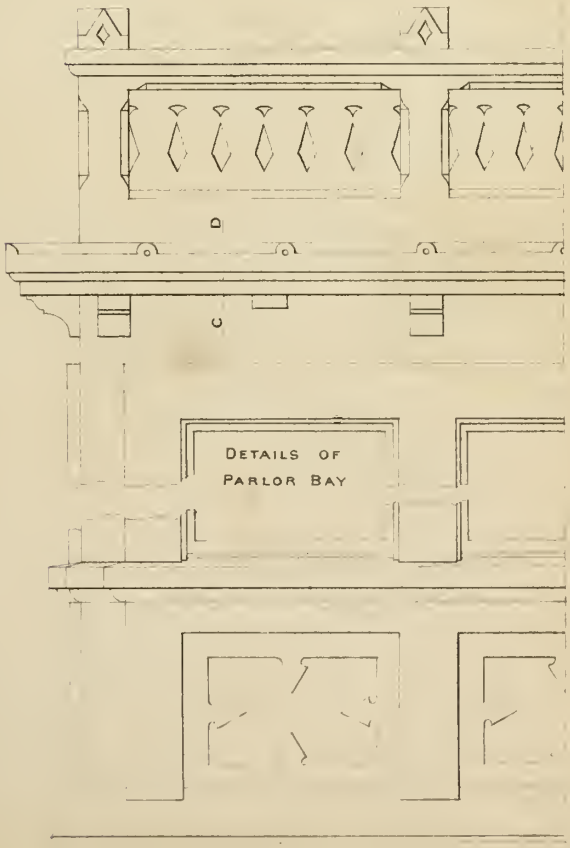
Top of Dining Room Bay.



Lattice Work at B
⅛ Full Size

Section on C D

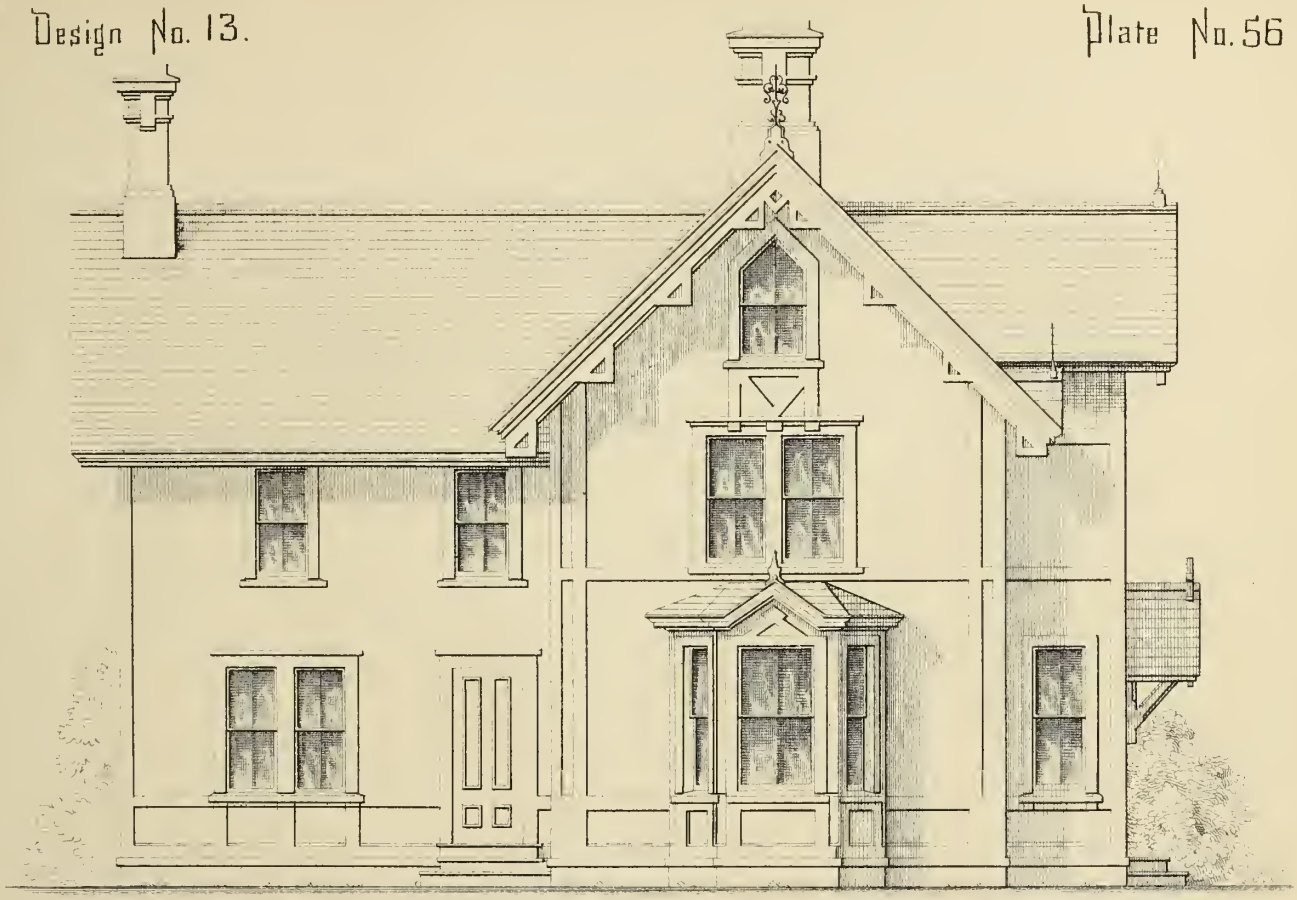
Details of Balcony & c



Details of Parlor Bay

Design No. 13.

Plate No. 56

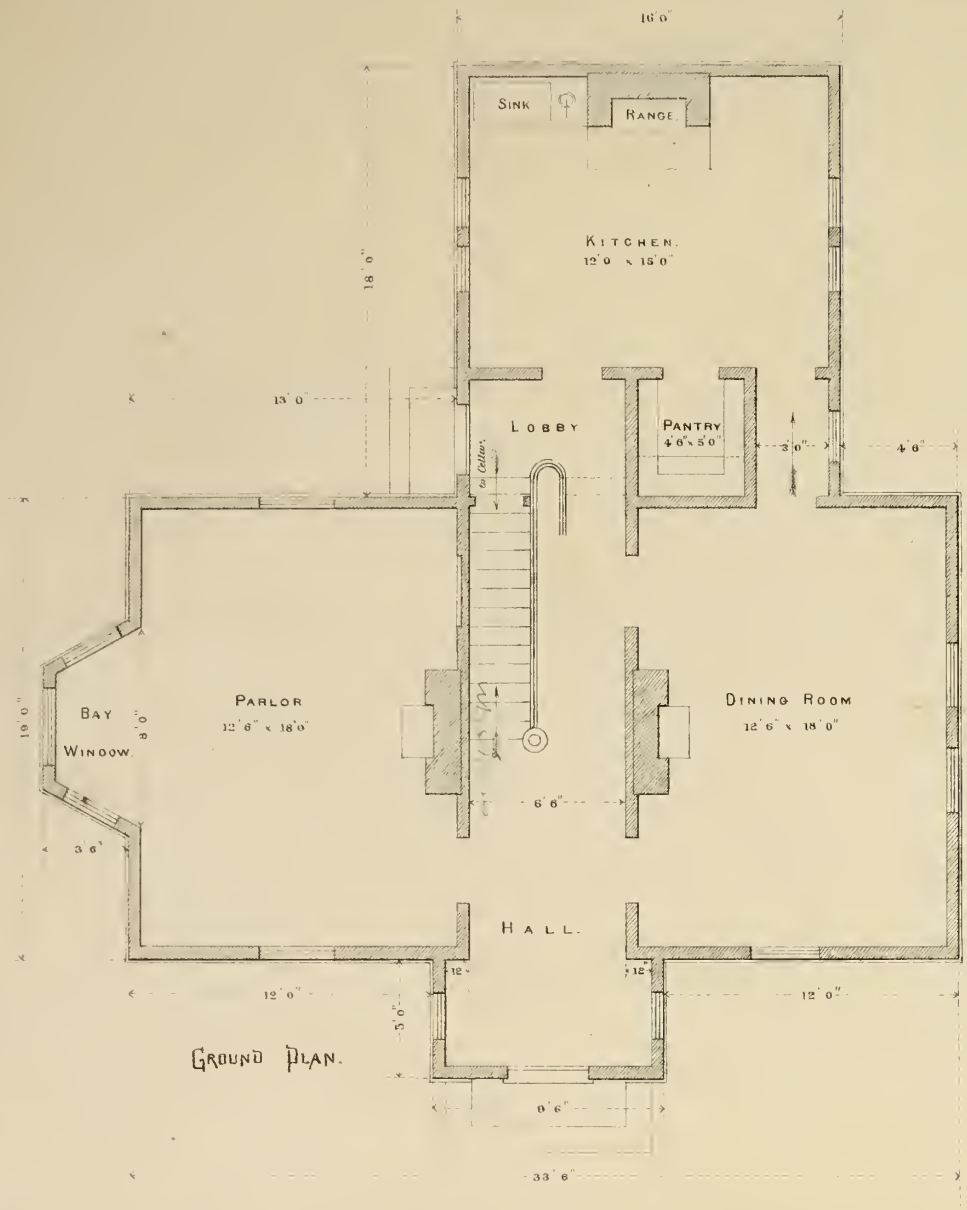


SIDE ELEVATION.

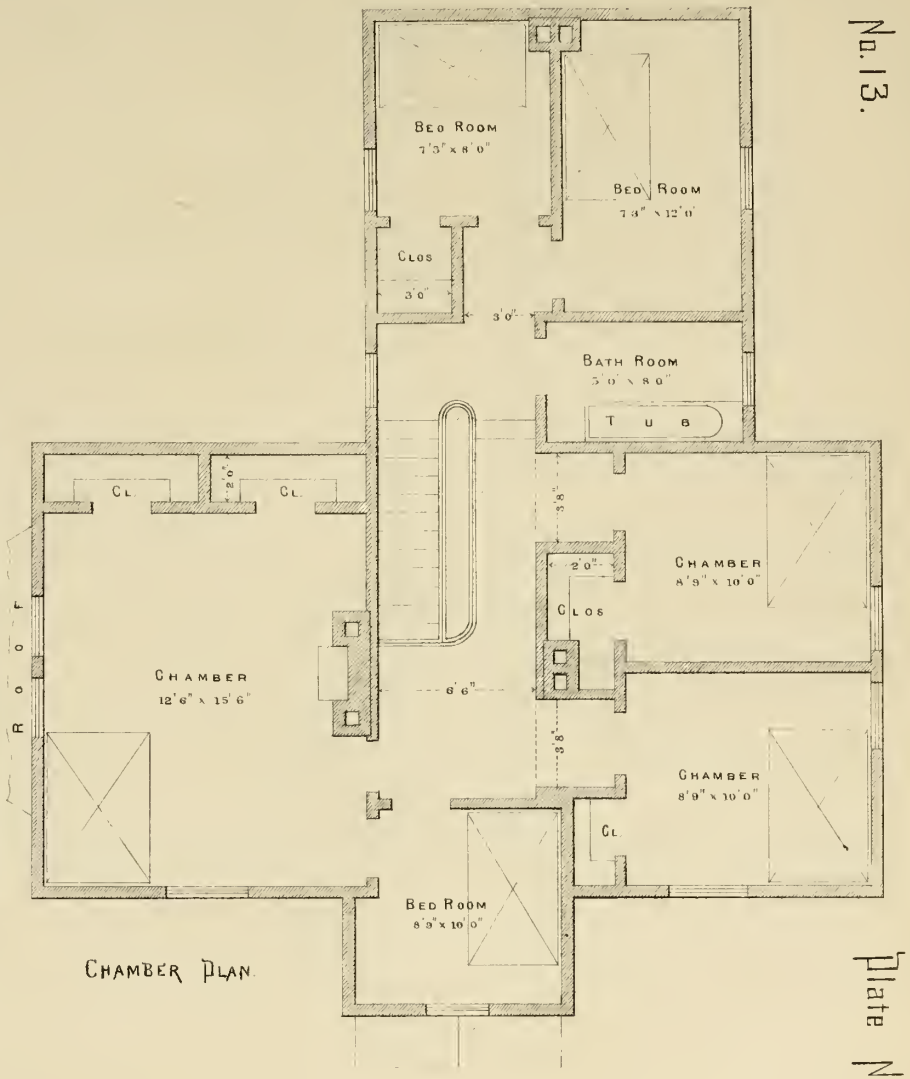
FRONT ELEVATION.

SCALE 1/8 Inch to One Foot

Design No. 13.



GROUND PLAN.



CHAMBER PLAN.

SCALE 1/8 Inch to One foot

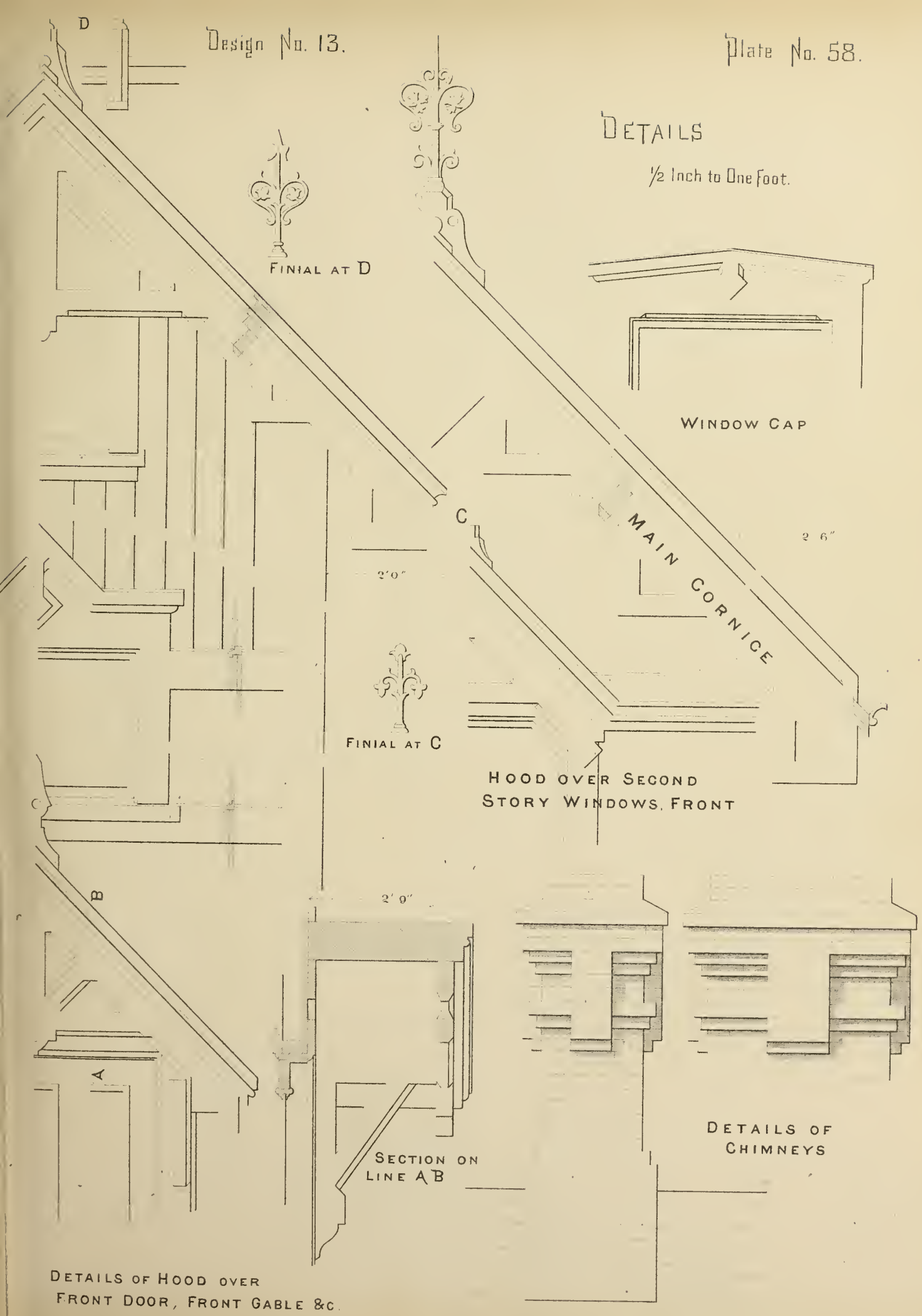
Plate No. 57.

Design No. 13.

Plate No. 58.

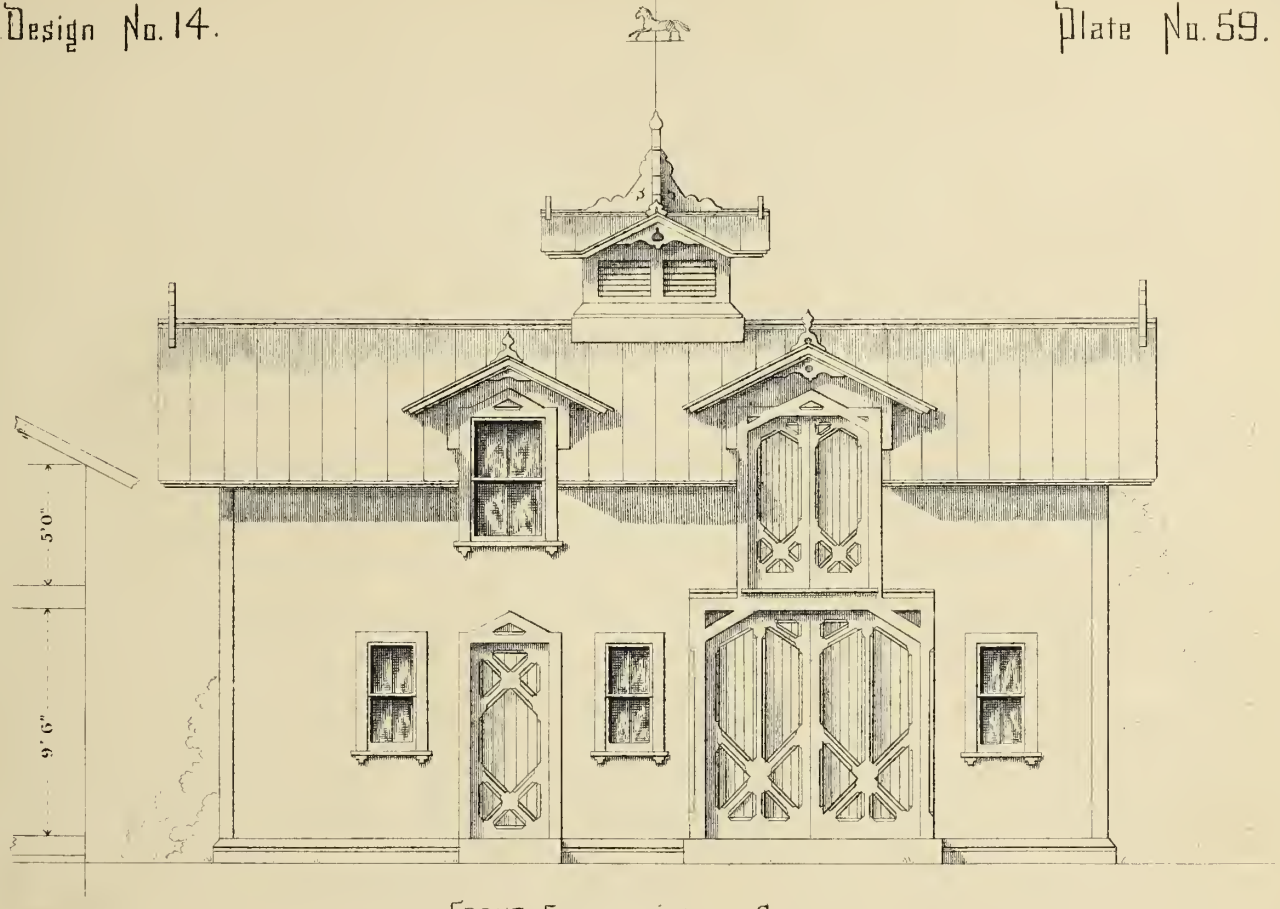
Details

½ Inch to One Foot.

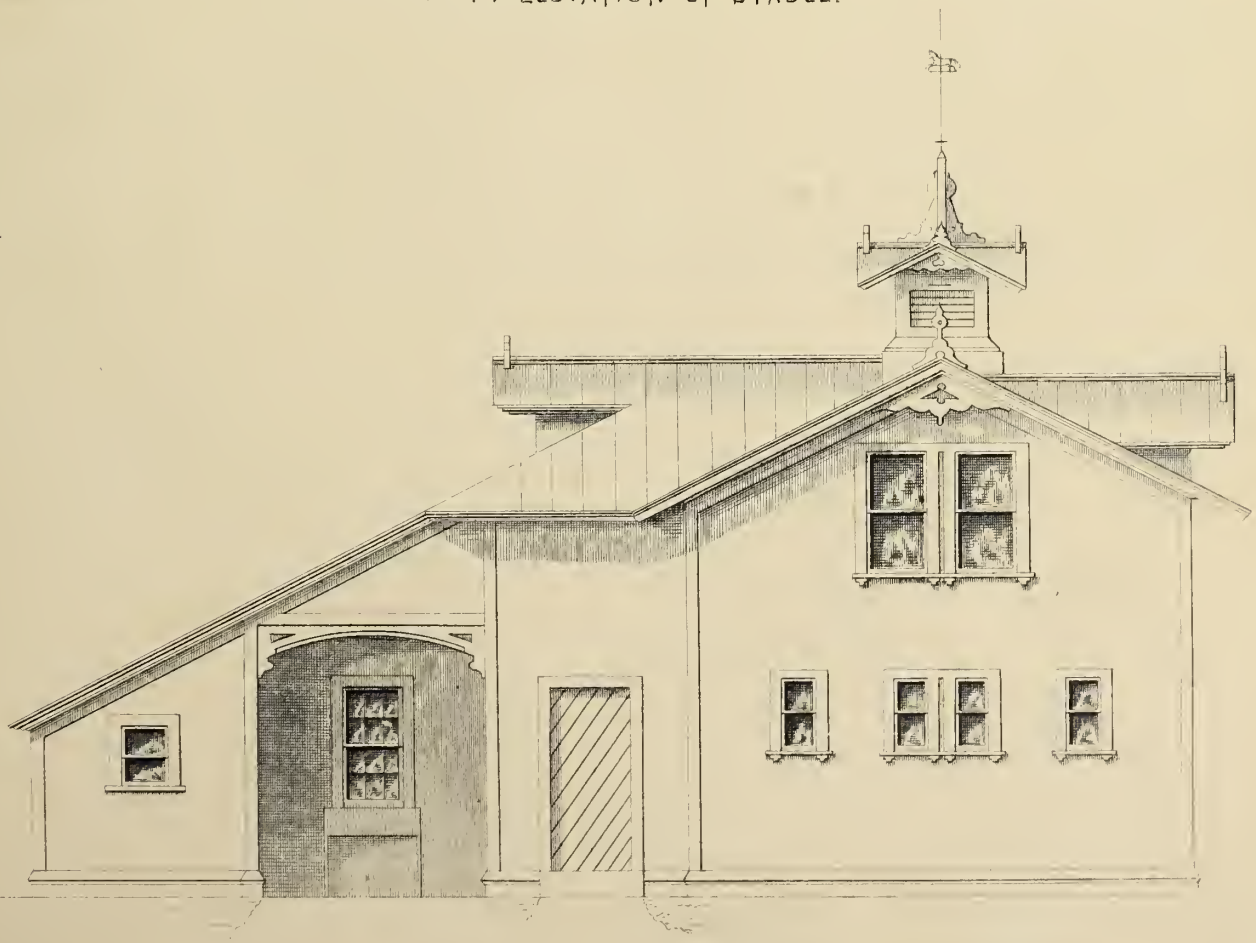


Design No. 14.

Plate No. 59.



FRONT ELEVATION OF STABLE.

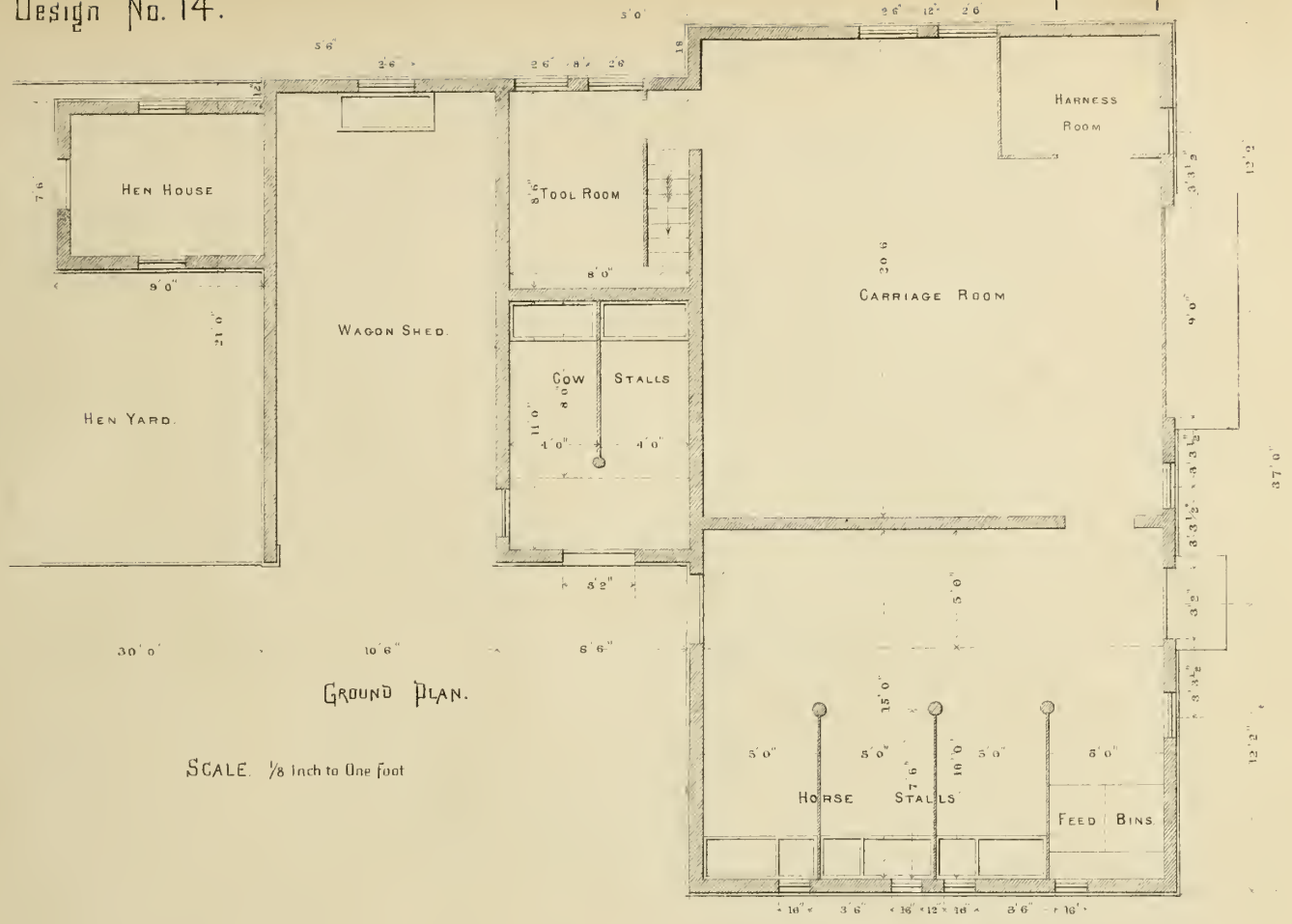


SCALE. 1/8 Inch to One Foot

SIDE ELEVATION OF STABLE.

Design No. 14.

Plate No. 60.

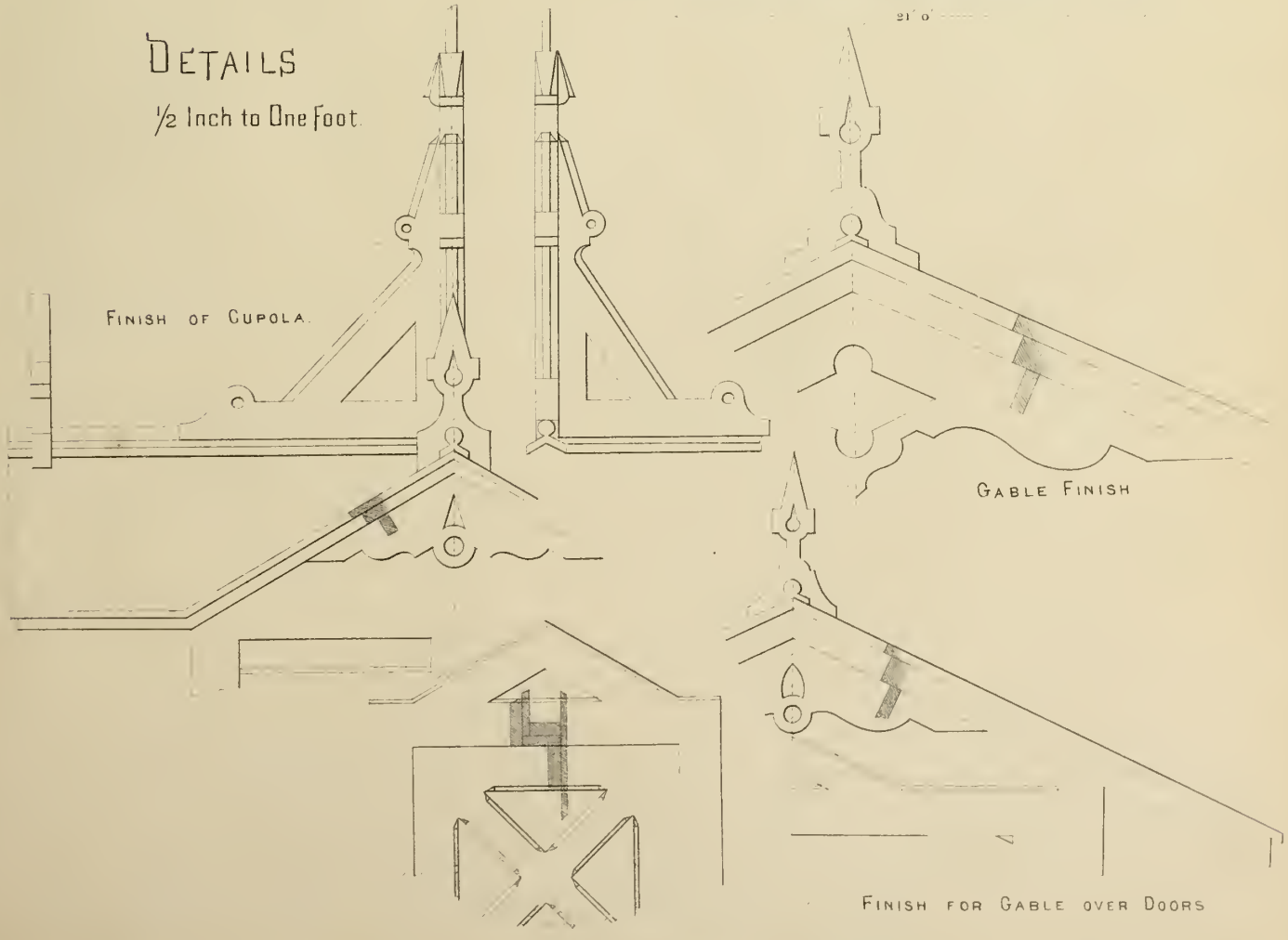


Ground Plan.

Scale. ⅛ Inch to One Foot

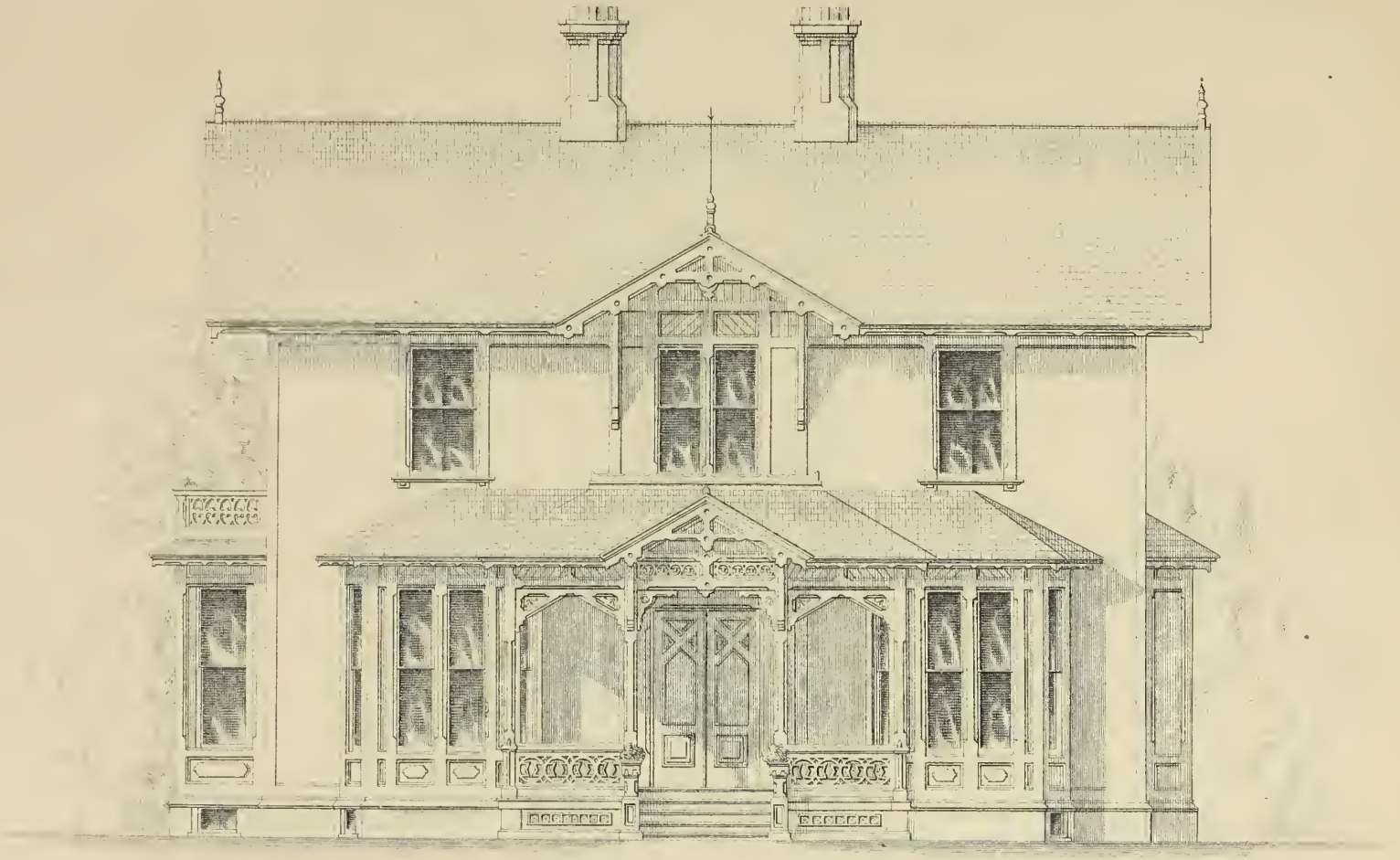
Details

½ Inch to One Foot.



Design No. 15.

Plate No. 61.

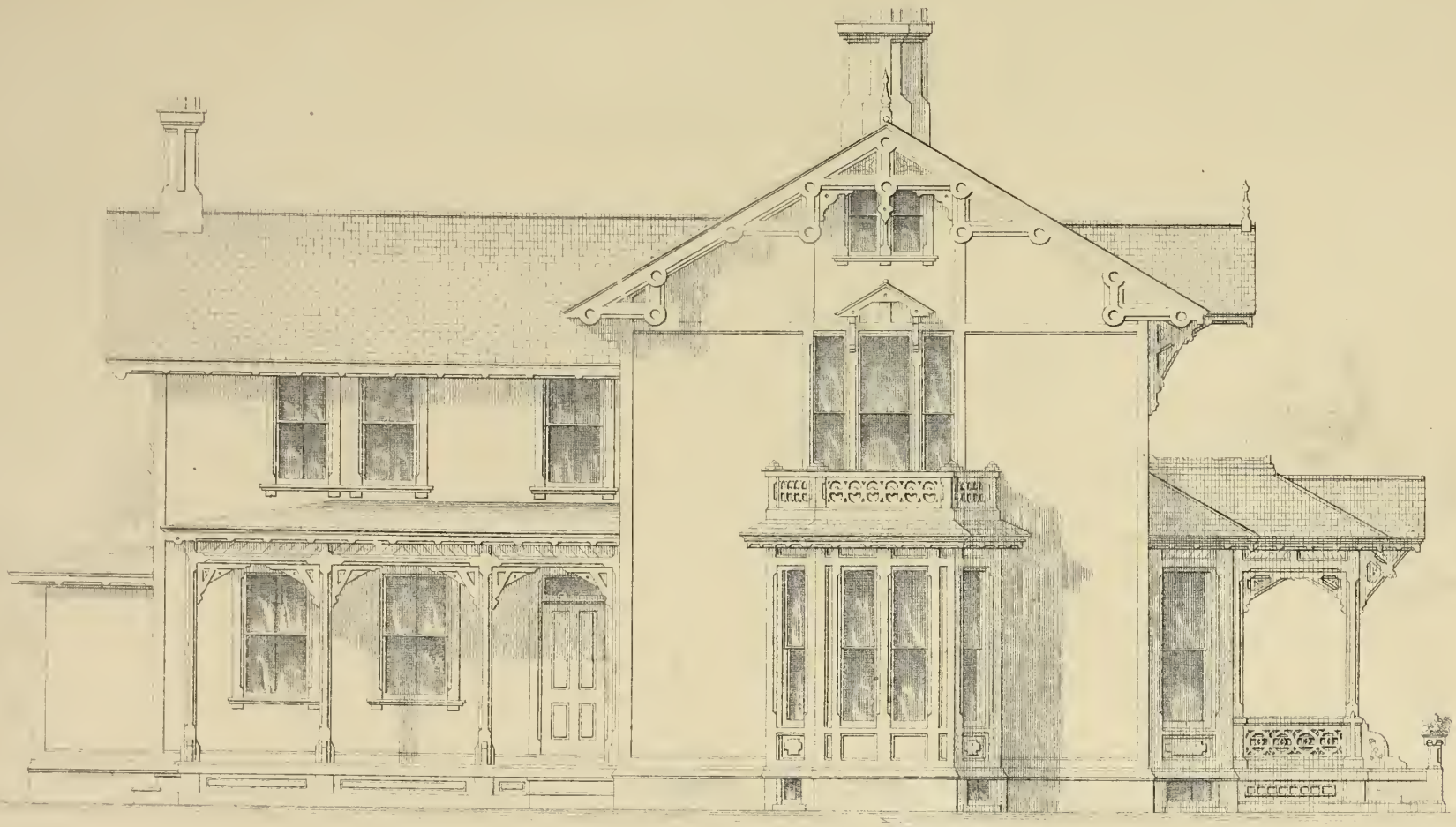


FRONT ELEVATION.

SCALE. 8 Feet to One Inch.

Design No. 15.

Plate No. 62.

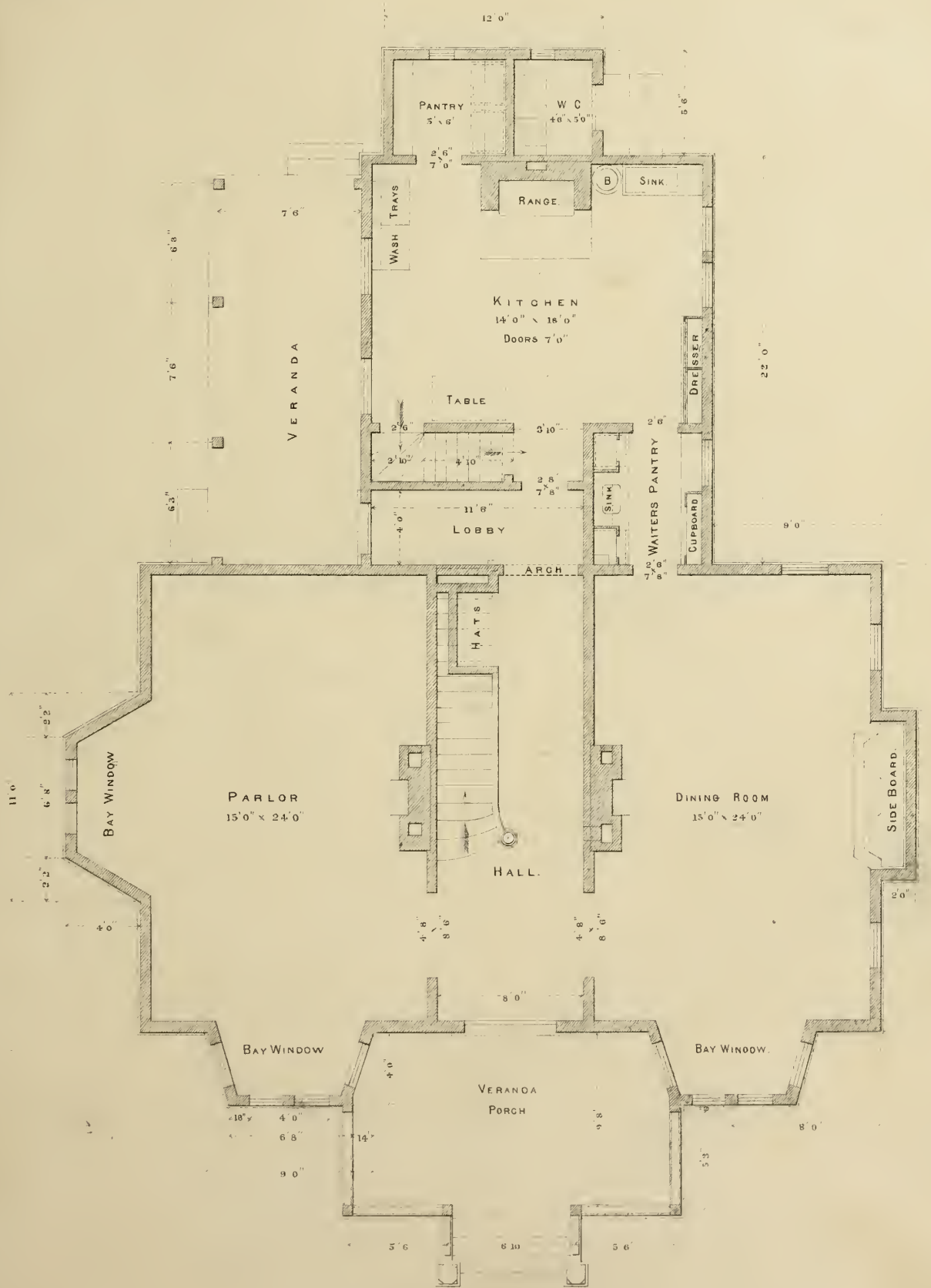


SIDE ELEVATION

Engraved by KORFF BROTHERS

Design No. 15.

Plate No. 63.

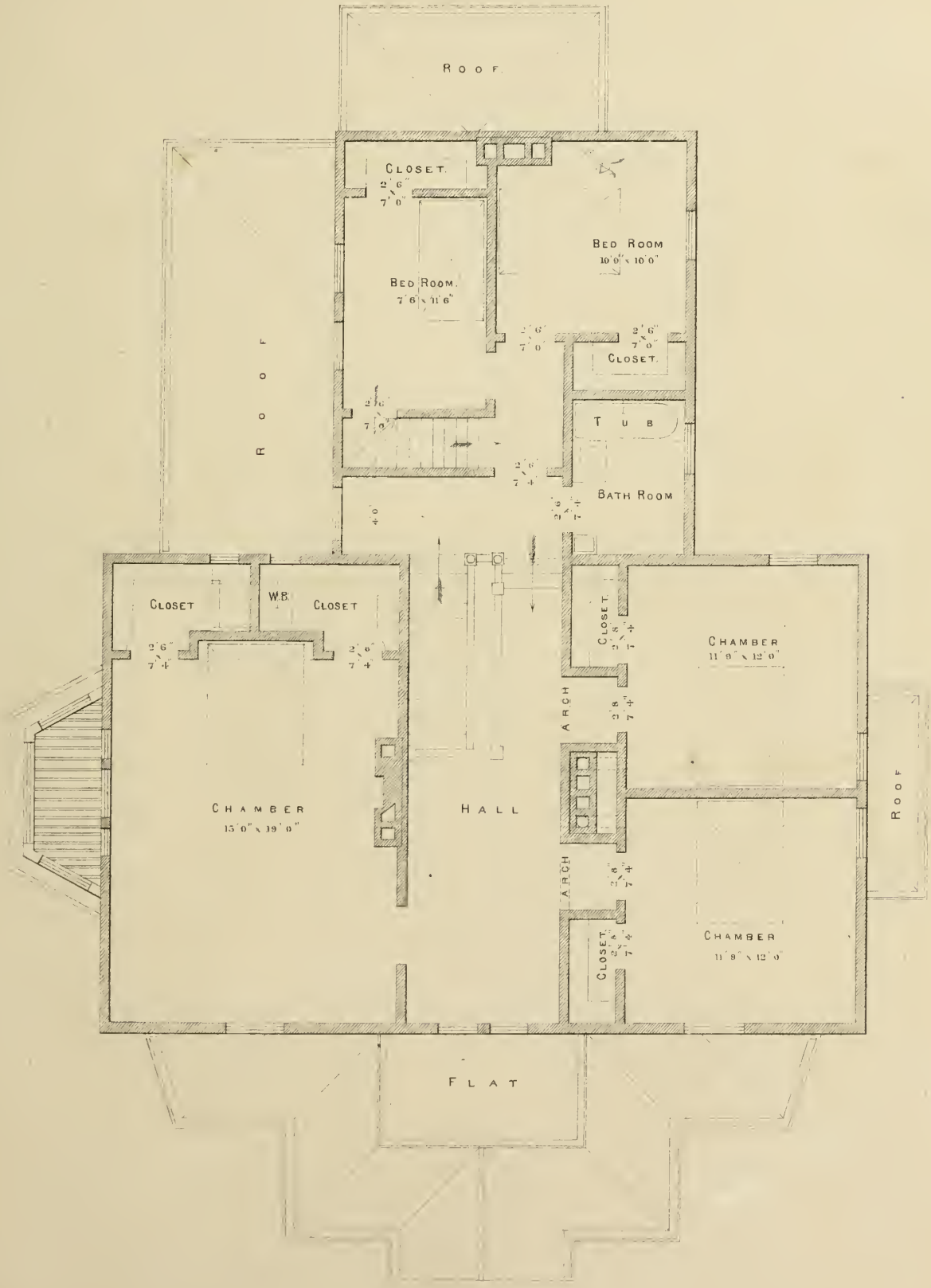


Ground Plan.

Scale 8 Feet to One Inch

Design No. 15.

Plate No. 64.



CHAMBER PLAN.

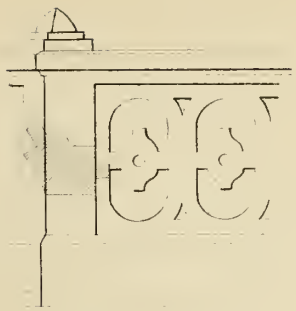
SCALE. 8 Feet to One Inch.

Design No. 15.

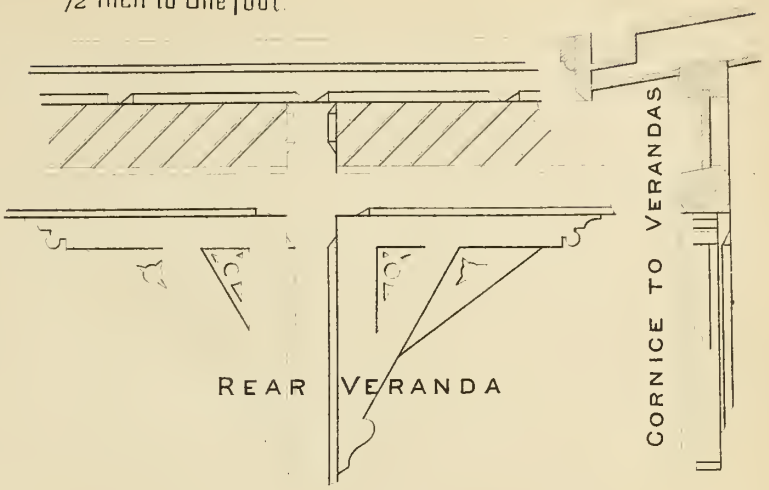
DETAILS

½ Inch to One Foot

Plate No. 65.

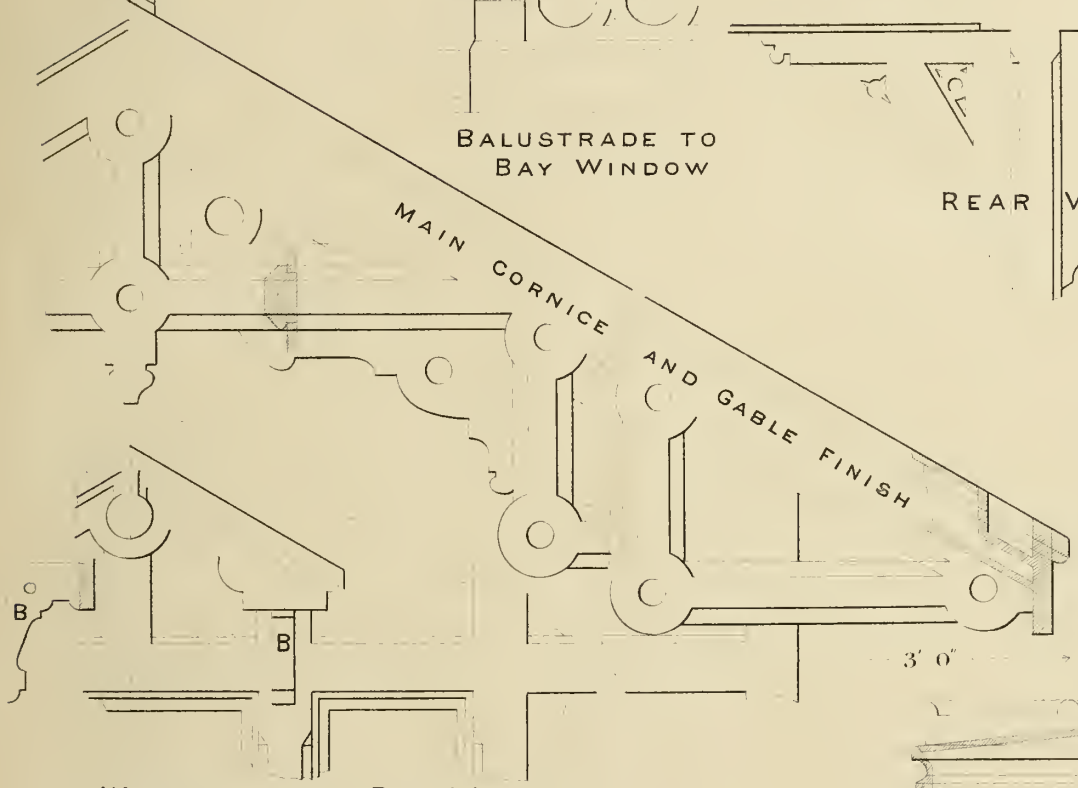


BALUSTRADE TO BAY WINDOW



REAR VERANDA

CORNICE TO VERANDAS

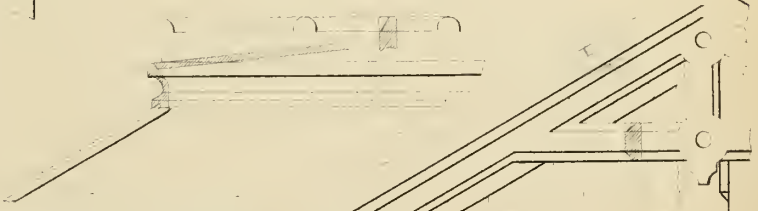


MAIN CORNICE AND GABLE FINISH

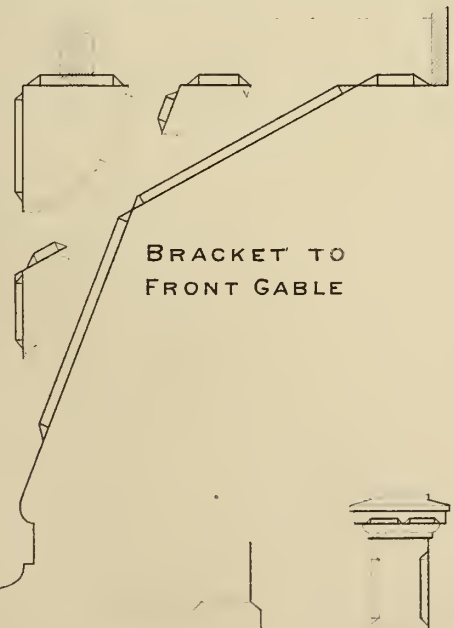
WINDOW OVER BAY WINDOWS

MAIN CORNICE

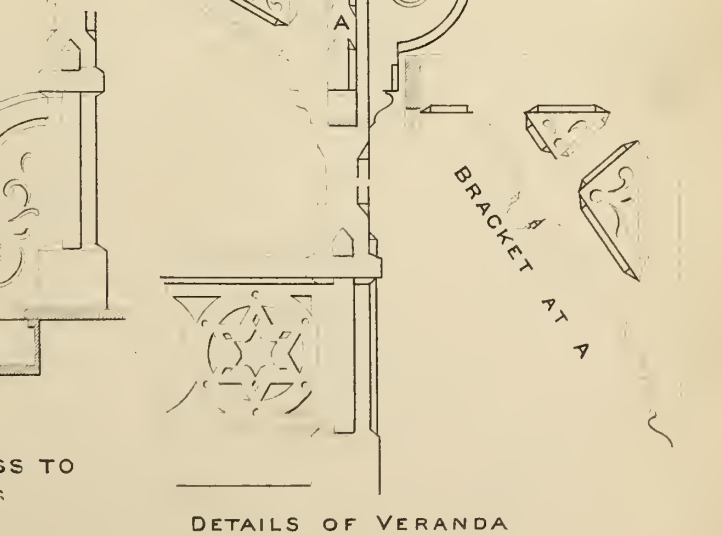
3' 0"



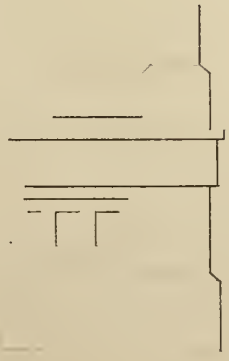
CORNICE TO FLAT



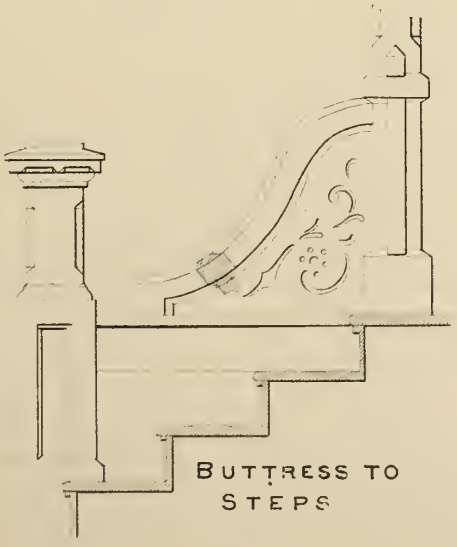
BRACKET TO FRONT GABLE



BRACKET AT A



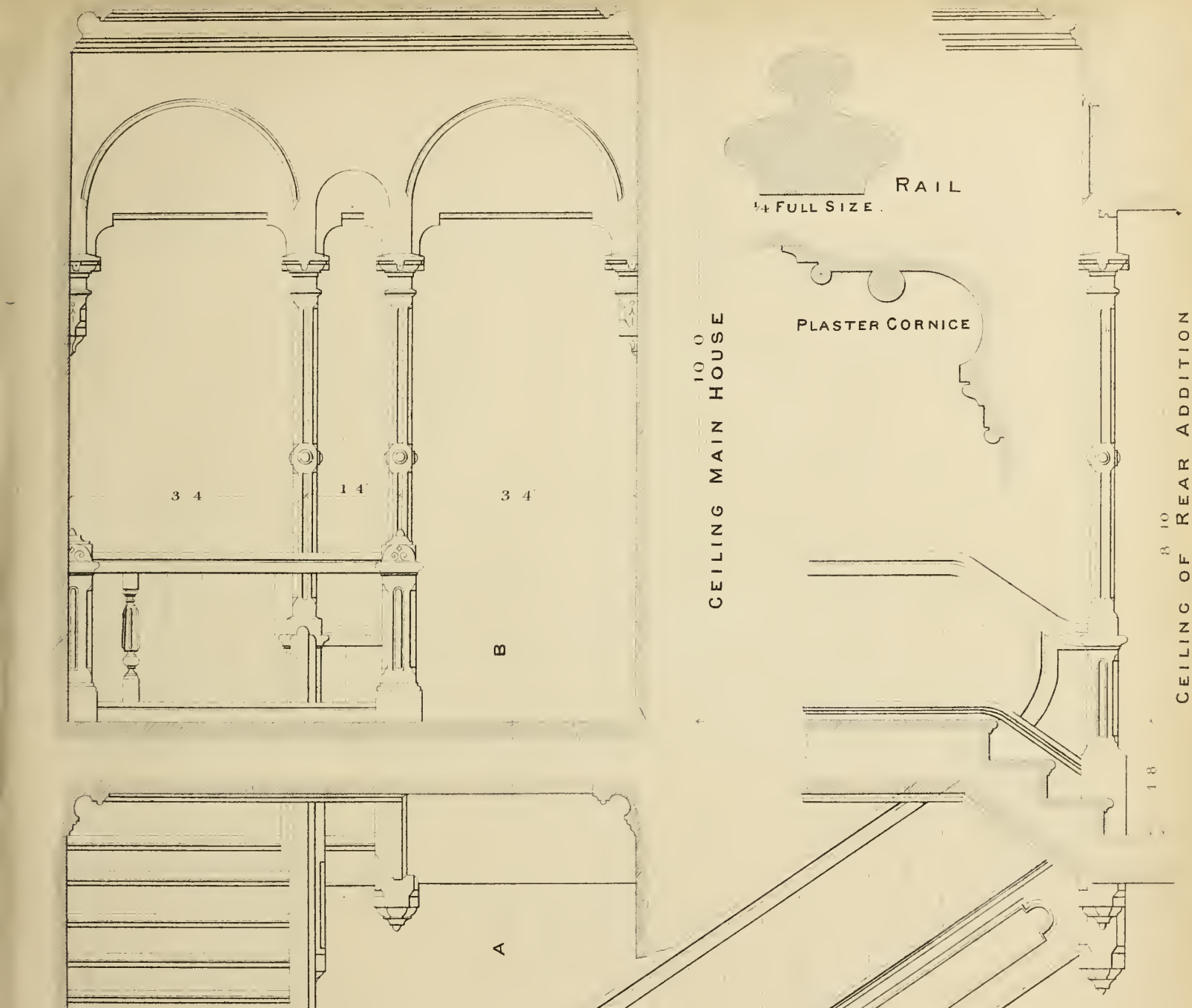
PLINTH TO VERANDA

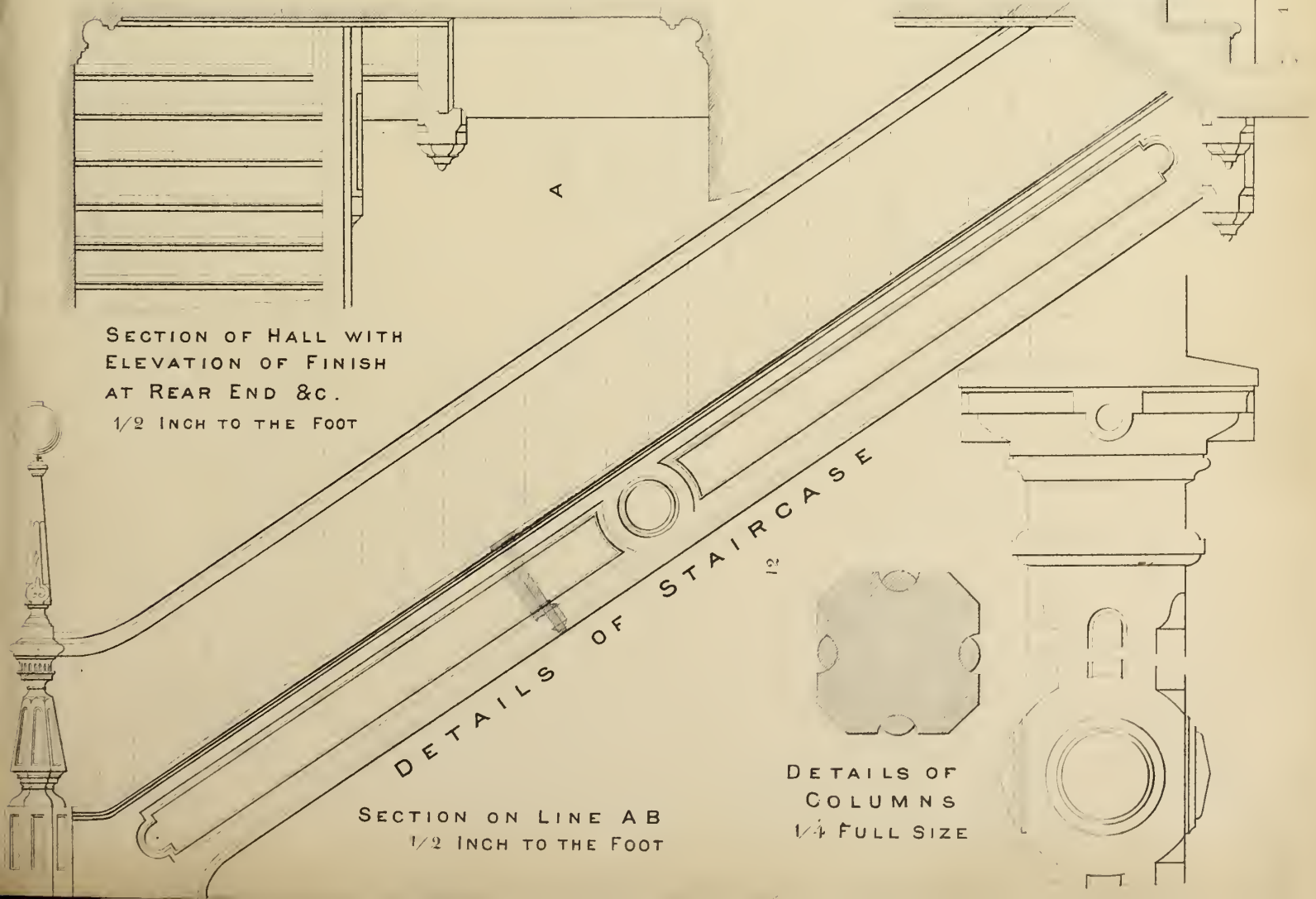


BUTTRESS TO STEPS

DETAILS OF VERANDA

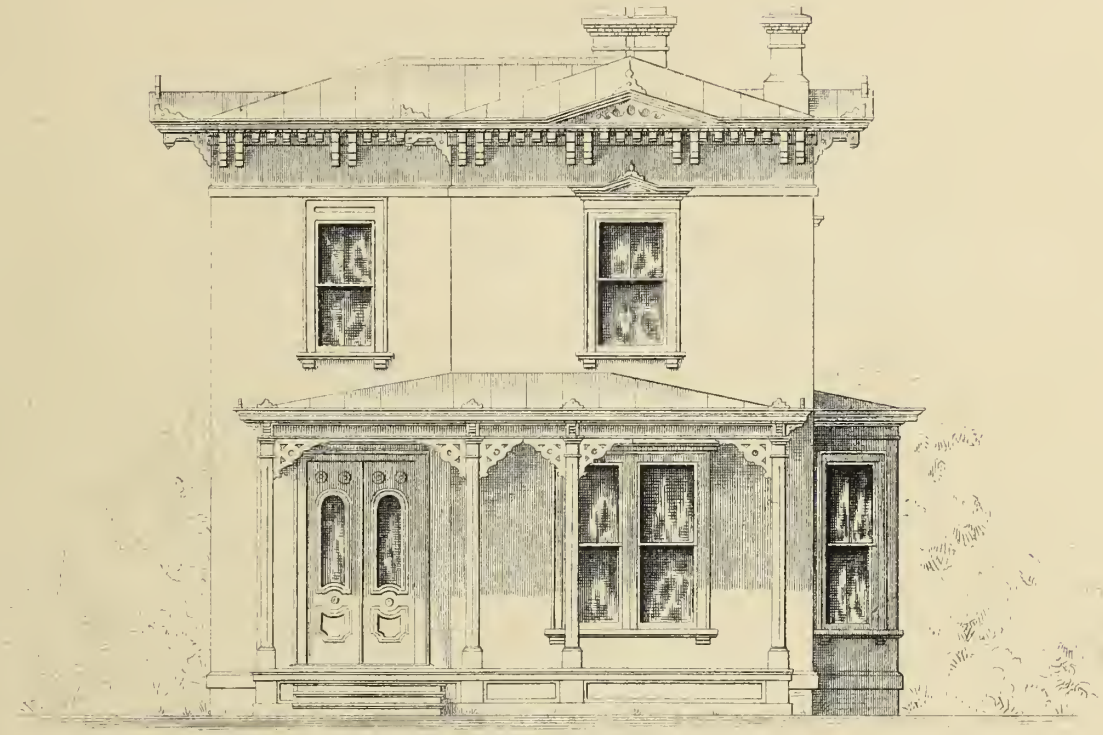
Section of Hall with Elevation of Finish at Rear End &c.
1/2 Inch to the Foot



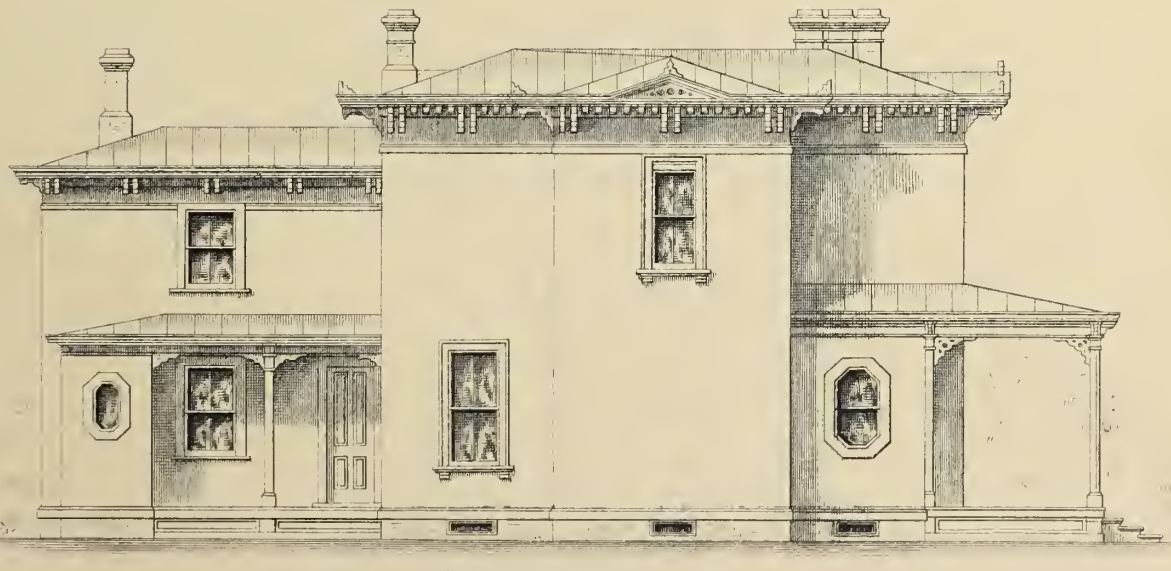


Section on Line AB
1/2 Inch to the Foot

Details of Columns
1/4 Full Size



FRONT ELEVATION.
SCALE. 0 1/8 INCH TO ONE FOOT.



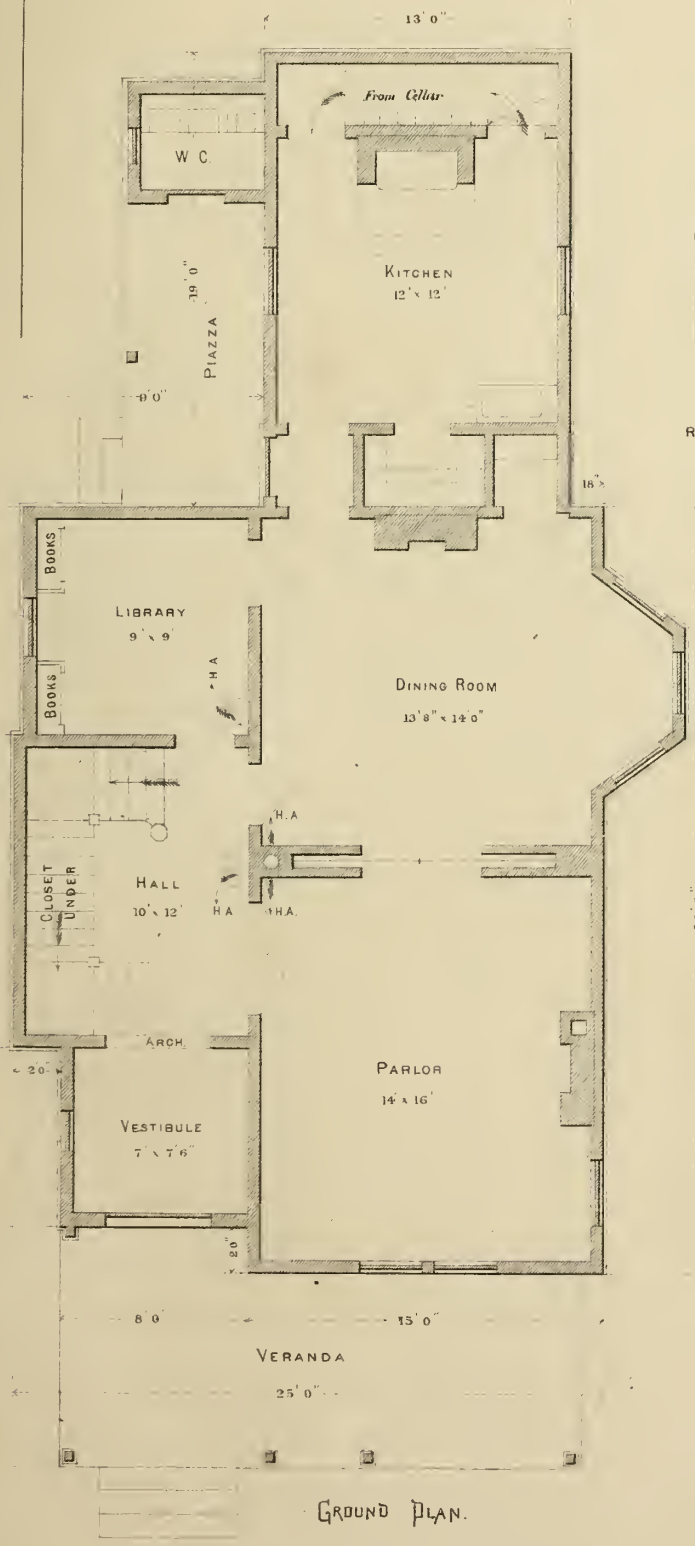
SIDE ELEVATION.
SCALE. 0 3/32 INCH TO ONE FOOT.

1ST	STORY	(MAIN BUILDING)	10'0" HIGH.
2D	"	"	9'0" "
1ST	"	(EXTENSION)	8'6" "
2D	"	"	8'0" "

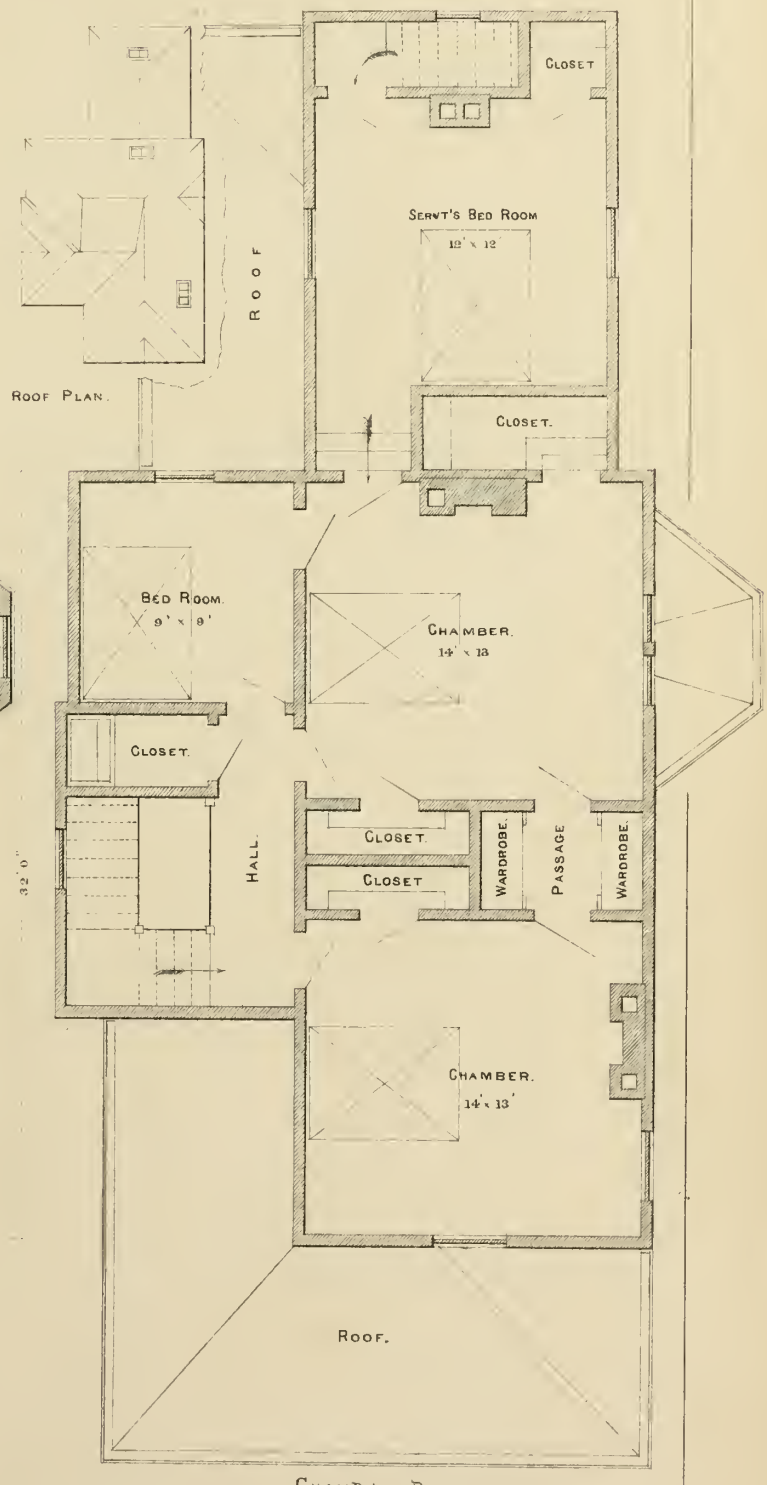
UNIVERSITY OF
LIBRARY
ILLINOIS.

Design No. 16

Plate No. 68.

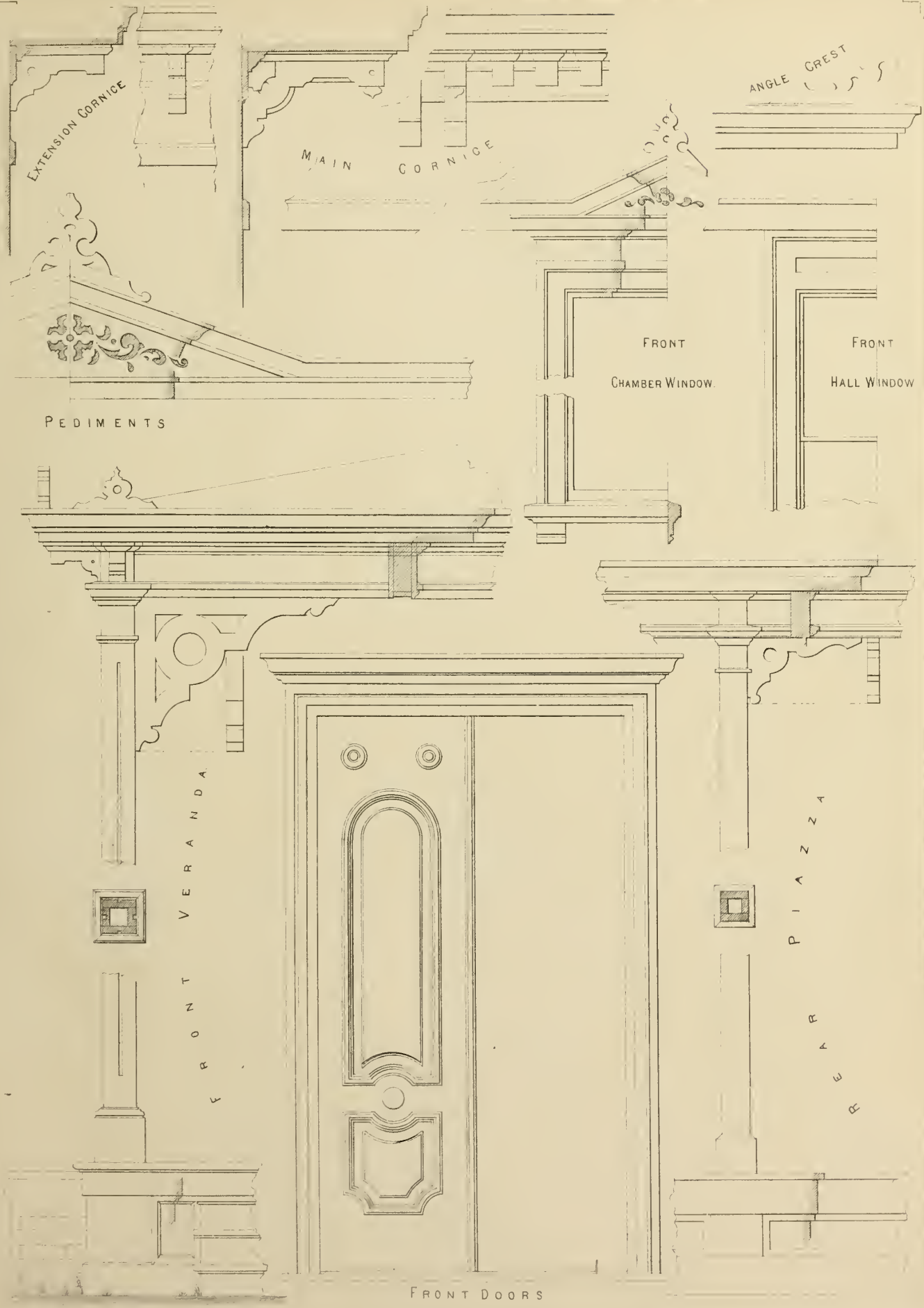


GROUND PLAN.



CHAMBER PLAN.

SCALE. ⅛ Inch to One Foot

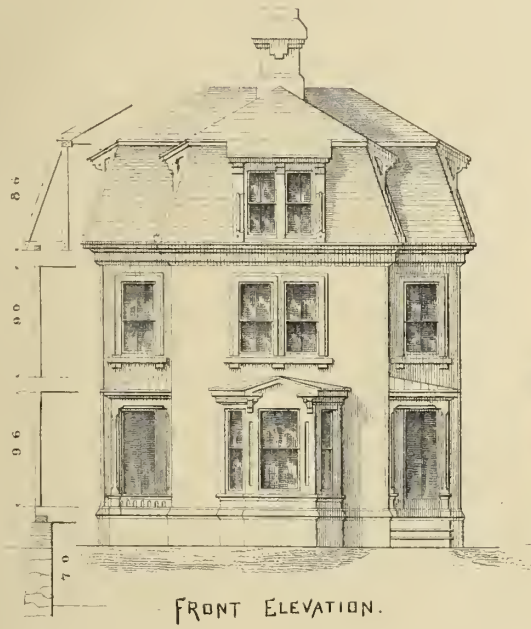


SCALE. ½ Inch to One Foot

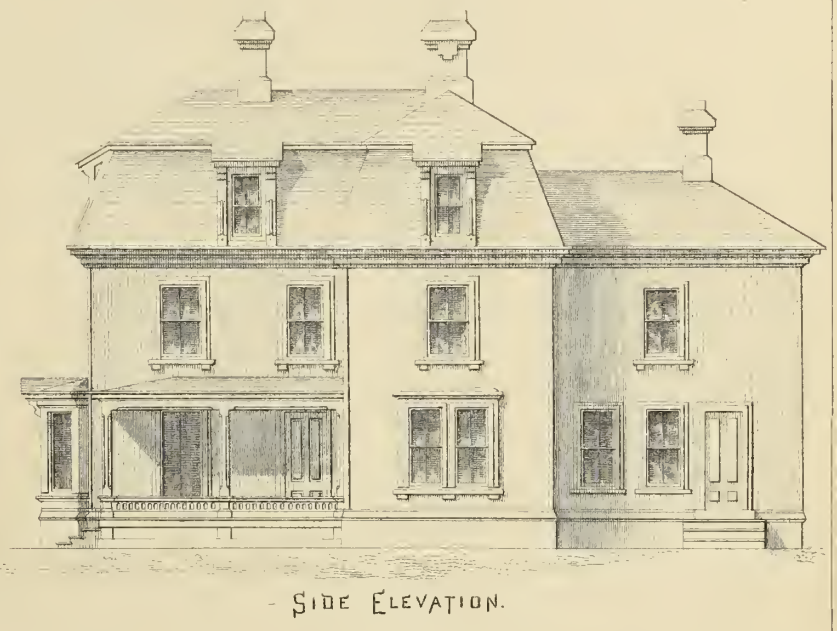
Design No. 17.

Plate No. 70.

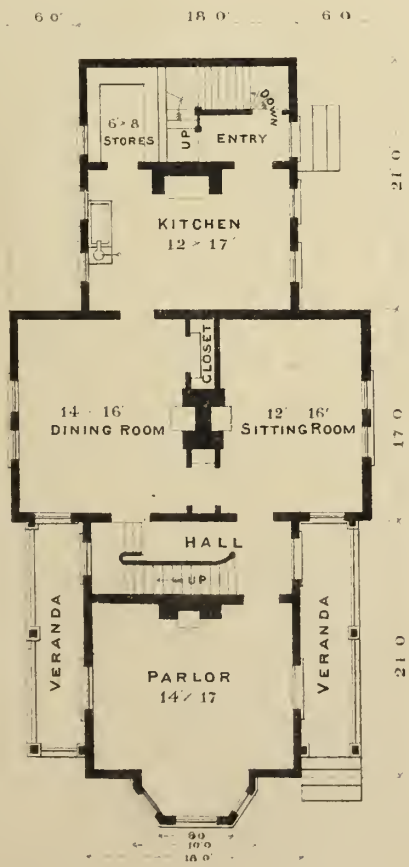
1/16 Inch to One Foot



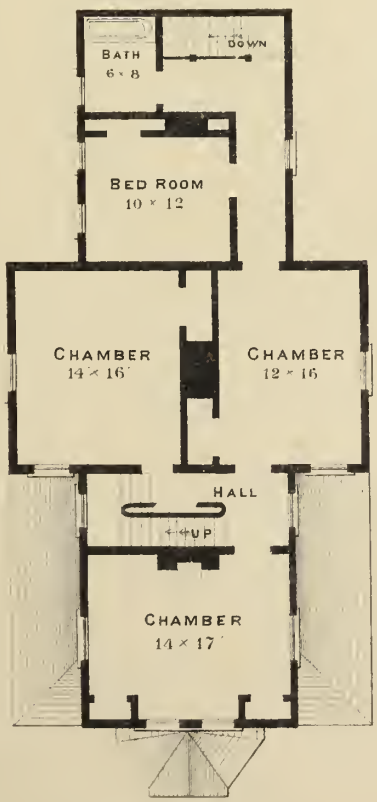
FRONT ELEVATION.



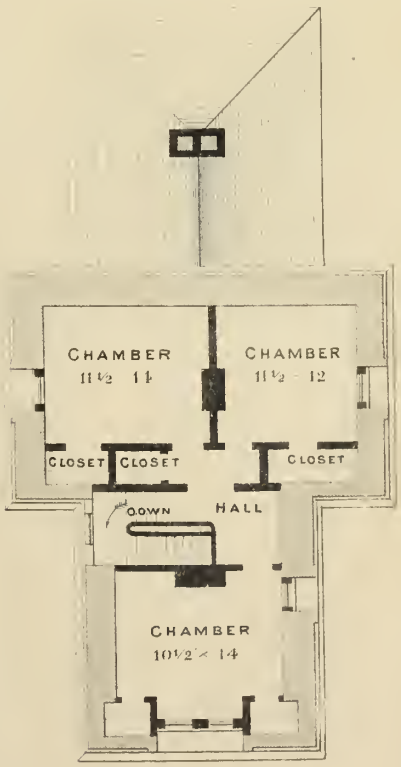
SIDE ELEVATION.



FIRST FLOOR PLAN



SECOND FLOOR PLAN



THIRD FLOOR PLAN

DESIGN No. 17.

MASONS' SPECIFICATION.

EXCAVATION. Excavate for the cellar walls to the depth of 5 feet below the finished grade, for all the drains, to the depth of 3 feet, and do all the excavating required for the cistern and cess pool.

After the walls have been built, and the drains and other works specified have been set, fill up and grade off with the earth excavated, as may be directed.

STONE WORK. Lay the cellar walls 20 inches thick, $5\frac{1}{2}$ feet high, with good large-sized building stone, laid in the best lime mortar. Start from a good firm foundation 6 inches below the finished level of the cellar bottom.

Point full with best mortar at the completion.

Level the cellar bottom and grout and cement it in the best manner.

CESS POOL. Build a cess pool 3 feet in diameter and 6 feet deep, as directed, with good building stone laid dry. Cover with sound chestnut plank 4 inches thick.

PIERS. Set proper stone foundations for the brick piers herein specified, those on the outside set 3 feet deep.

CUT STONE. Provide and set blue stone sills, 4×6 inches, for all the cellar windows, also, dressed blue stone hearth and lintel for the kitchen fire-place.

DRAINS. Lay one 4-inch drain from beneath the sink in the kitchen to the cess pool, and one of the same calibre from the cistern to the cess pool, to serve as an overflow pipe. Both of the above to be properly trapped.

Lay 4-inch drain pipes from the leaders to the cistern.

All of the above to be of vitrified earthen pipe, with all angle pieces required, set with cemented joints, and connected with cistern, cess pool, &c., in the best manner.

BRICK WORK.

UNDERPINNING. Lay the underpinning walls 2 feet high and 12 inches thick.

Set window frames as required by the design.

PIERS. Build three 12-inch square brick piers to carry the timbers in the first floor, and four 8-inch square piers to carry the veranda floors.

Use best cement for the external piers.

CHIMNEYS. Build the chimneys as required by the design. Faced work in the kitchen fire-place of selected bricks, with flushed joints, rubbed. Grate fire-places elsewhere as the plans show. Flues 8×12 inches, pargetted throughout. Top out the chimneys above the roof as required by the design, using selected bricks, with best cement, and flush and rub the joints.

Furnish and set three marble mantels, with Dixon's low down grates, of the value of —— dollars each, and one range, of medium size and of approved manufacture.

Turn trimmer arches for all the hearths.

CISTERN. Build a cistern at the rear of the house as directed, 8 feet in diameter and 6 feet deep in the clear, the bottom of the cistern being $8\frac{1}{2}$ feet below the finished surface. Build the vertical walls, and the top (domical in form) 4 inches thick. Man-hole 2 feet in diameter, inside, and carried up to the surface.

Grout and cement the bottom in the best manner. Lay all the brick

work with cement, and finish all the interior, as well as the outside of the domed top and the man-hole, with two coats of best cement.

Cover the man-hole with 3-inch stone slab and rim, the former fitted with iron ring and staple.

BRICK FILLING. Fill in the frame work of the exterior walls their entire height with good pale bricks, set on edge, flush with the inner edge of the studding.

MATERIALS FOR BRICK WORK.

Except for the filling in, use for all the brick work specified herein good hard-burned weather bricks.

Select the best of them for exposed face work, and, except as otherwise specified herein, lay all bricks with best lime and sand mortar.

LATHING AND PLASTERING.

Lath the ceilings, the walls of the 3d story, and the partitions throughout, with good, sound laths, and plaster with one good, heavy coat of hair mortar, finished with "hard finish" white coat.

Float, smooth and finish the plastering throughout in the best manner.

DEAFENING. Deafen the first floor by grouting between the beams.

Limewash the whole interior of the cellar, including the bottom of the first floor, two good coats.

DESIGN No. 17.

CARPENTERS' SPECIFICATION.

FRAME.

Furnish all timber required to execute the framing, according to the design. Flooring beams to be of spruce; remainder of the timber of pine or hemlock, and all sound and square edged.

Sizes of the parts as follows:

Sills, 3×8 inches, halved at the angles and well nailed.

Flooring beams, 2×9 inches.

Trimmers and headers, 4×9 inches.

Girders carrying ends of beams, in first floor, 6×9 inches.

Corner studs, 4×4 inches.

Window and door studs, 3×4 inches, and remaining wall studs, 2×4 inches.

Plates, 3×4 inches.

Rafters for Mansard roof, 2×6 inches; for upper roof, 2×8 inches.

Ceiling pieces for third story, 2×6 inches.

Sills for veranda floors, 4×6 inches.

Joists, 2×6 inches.

Veranda plates, 3×6 inches.

Rafters, 3×5 inches.

Execute the framing in the manner commonly known as "Balloon Framing," and in the most substantial and skillful manner.

Bridge all the flooring beams with one row of 1 × 3 crossed bridging.

Double the beams that carry partitions.

EXTERIOR COVERING.

WALLS. Cover all the vertical walls with pine sheathing, planed $\frac{7}{8}$-inch thick, matched, and set in widths of not more than 5 inches.

ROOFS. Cover the roofs with sound matched roofing boards. Select the best of them for the verandah roofs and plain the under side of them for the latter, and bead and scratch bead.

TIN WORK. Line the gutters throughout, extending the lining up at least 6 inches under the slates.

Finish the veranda and bay window roofs with tin, put on with standing lock joints, and turned up at least 2 inches behind the siding. Carry the tin work of the bay window roof up and back of the siding 6 inches, and make weather-tight.

Put up 4 leaders of $3\frac{1}{2}$ inches calibre on the walls of the house. Also, 1 leader of $2\frac{1}{2}$ inches calibre on each of the verandas, and 1 of the same size on the bay window. All of these leaders to connect at the top with the gutters, and at the bottom with the drains, and to be properly secured to the walls with metallic fastenings.

Use the best quality of charcoal roofing tin for all of the above specified tin work, and paint it all with two good coats of best metallic roofing paint.

SLATING. Finish all the roofs, not required above to be tinned, with good sound black or purple slates, over stout roof-felting, the slates laid so that each course shall lap the second course below it $2\frac{1}{2}$ inches.

Flash the hips, valleys, ridges and chimneys with stout zinc, and make all the roof weather proof.

SCUTTLE. Set glazed scuttle two by three feet in the roof as directed, and hang it with wrought iron hinges and hasp.

EXTERIOR FINISH. Put up the cornices, window and door finish, corner beads, and water-table, as required by the design. (See "cornice, corner bead and water-table" in Plate 82.) Case up gutters in the cornices. Plane and bead the timber in the roof of the verandas. Make the veranda railings of $1\frac{1}{4}$-inch pine, cut as shown, and with proper cap and plinth. Veranda floors of $1\frac{1}{4}$-inch pine, planed, matched, set in widths of four inches, with leaded joints, and blind nailed.

Outside steps of similar workmanship. Build the bay-window as required by the design. Brackets for pediment three inches thick.

Water-table $1\frac{1}{2}$ inches thick. Lip the top edge to connect with the siding. Band mouldings for windows and doors three inches wide, $1\frac{1}{4}$ inches thick, with coved inner edge. Cover the top band with metal or wooden cap so as to make it weather proof.

Window sills two and one-half inches thick.

Dormer windows as the design requires. Brackets and finish at the sides 6 inches on the face, the latter raised 3 inches from the plane of the roof where it follows the line of the roof, and finished with $2\frac{1}{2}$-inch bead. Four inches margin between the edge of the window frame and the side finish. Double window sill, the lower one extending to the edge of the gutter, and covered with tin, as required for the roofs.

BLINDS. Provide outside blinds for all the windows in the first and second stories, and hang them with approved hinges and fastenings. Blinds to be $1\frac{1}{4}$ inches thick, four panels to each window, with rolling shades.

Do any and all other finishing work required to carry out the design as shown by the drawings.

WINDOWS.

CELLAR. Cellar window frames, six in number, of plank, rabbeted.

Sashes $1\frac{1}{2}$ inches thick, hung at the top with iron butts, and fastened open and shut with strong iron buttons.

FRAMES. Above the cellar, adapted for hanging the sashes with cords and weights.

SASHES. One and a half inches thick, finished, two sashes to the window.

GLASS. For all the windows throughout, of the sizes given on the drawings, and of the best quality of French sheet glass.

HANGING. Double hang all the sashes with 2-inch best axle pulleys, iron weights, and best hemp sash cord, and put on spring centre fastenings of approved pattern, with white porcelain knobs. (French windows, opening on veranda, specified under the head of "Doors.")

INTERIOR.

FLOORS. Lay the floors throughout with thoroughly seasoned, perfectly sound flooring, $1\frac{1}{4}$ inches thick, set in widths not more than 5 inches to any one piece, planed, matched, and blind nailed.

Smooth off the floors after laying where required to reduce them to a uniform surface.

Saddles for all the doors of hard wood.

Case up an opening in the ceiling of the third story, in one of the closets, set a suitable cleated door, provide step-ladder communicating with it, and lay, with sound boards, a floor equivalent to ten feet square around the opening.

DEAFENING. Furnish materials and do all carpenter's work required in deafening the first floor.

STAIRS. Build the cellar stairs with 2-inch plank string pieces, and $1\frac{1}{2}$-inch treads, planed and grooved together.

Build the rear stairs, from the first to the second story, with $1\frac{1}{4}$-inch risers and 1-inch treads. Enclose them with a partition of $1\frac{1}{4}$-inch planed, matched and beaded sheathing, carried down so as to enclose the cellar stairway, and carried up three feet above the second floor, surmounted with a $2\frac{1}{2}$-inch bead.

Build the principal stairs, from the first to the third story, with $1\frac{1}{4}$-inch treads, finished with scotia and torus nosing, and 1-inch risers.

Set a 6-inch fancy turned newel at the start, and carry up a continued $2\frac{1}{2}$ by 4-inch moulded rail, on plain turned balusters $1\frac{1}{2}$-inch in diameter.

The post, rail, and balusters to be of the best seasoned black walnut rubbed down smooth, filled with oil, and finished with shellac.

PARTITIONS. Set the partitions throughout as required by the plans. Studs 2 by 4 inches, set 16 inches on centres.

Studs for door jambs and projecting angles set double.

FIRRING. Firr down the ceilings, excepting that of the cellar, with 1 by 2 firring strips, set 16 inches on centres.

GROUNDS. Set grounds around the window and door openings, and at the top of the base and skirting, to terminate the plastering.

Finish all projecting angles with corner beads.

DOORS.

Make the front outside door 2 inches thick, with raised mouldings, and of the size given on the drawings. Rear entrance door $1\frac{3}{4}$ inches thick. Inside door for the first story 2 feet 10 inches by 7 feet, and for the second and third stories 2 feet 8 inches by 6 feet 10 inches, four panels to the door, $1\frac{1}{2}$ inches thick, with beveled stiles and rails.

Glaze the two upper panels of the rear entrance door with best French sheet glass, and those of the front door with ornamental enamelled glass.

FRENCH WINDOWS.

Sashes for French windows, which include all the windows opening on the verandas, $1\frac{3}{4}$ inches thick. Stiles and top rail $2\frac{1}{2}$ inches wide, meeting stile 4 inches wide, and bottom rail 6 inches wide.

Glaze with the best French sheet glass, three panes to each half window.

HINGING.

Hang the doors and the French windows with loose jointed iron butts of proper size.

Put in, in the French windows, approved locks, handles, and flush brass bolts.

Fasten the doors throughout with mortise locks and latches of best manufacture, with brass bolts and facings, and white porcelain furniture.

BELL.

Hang one bell in the kitchen, connected with the front door by copper wires in zinc tubes. Bell of the gong pattern.

WINDOW AND DOOR FINISH.

Trim the windows and doors throughout with plain casings from 5 to $6\frac{1}{2}$ inches wide, with quarter round inner edge.

Finish the windows in the dining-room and sitting-room with framed and moulded panel backs, and the remaining windows with moulded stool pieces and aprons.

BASE.

Finish the rooms in the first story, not required to be wainscotted, with base $9\frac{1}{2}$ inches high, all the rooms in the second story with base 9 inches high, those in the third story with base 8 inches high. Cove the upper edge of the base in the first story, and bevel it in the second and third stories one-half inch.

WAINSCOT.

Sheath up the walls of the kitchen, entry and pantry to the height of 3 feet from the floor, with pine sheathing, planed, matched, beaded, put up vertically in widths of 3 inches, and finished with neat moulded cap.

PANTRY.

Put up a shelf 20 inches wide across the end of the pantry, and fit up cupboards with shelves and cleated doors beneath it. Continue this shelf

along the sides of the pantry 14 inches wide, and put up three other shelves extending around the walls, and from 9 to 12 inches wide.

CHINA CLOSET. Fit up the china closet with four shelves and three drawers, the latter 10 inches deep.

SHELVES. Put up, on beaded cleats, one top shelf in each of the remaining closets, and double iron clothes hooks in closets and entries as directed.

MANTELS. Build two wooden mantels, of the value of dollars each, for the chambers over the dining-room and sitting-room.

SINK. Furnish and set one cast-iron sink, 20 by 36 by 6 inches, in the kitchen, as by the plan. Case up a cupboard under the same, with materials similar to those required for the wainscot, and set cleated door, properly hung and fastened.

PUMP. Furnish and set a medium sized cast-iron pump next the sink, as required by the plan. Connect with the cistern by means of a $1\frac{1}{2}$-inch lead supply pipe. Put in a 2-inch lead waste pipe from the sink to the drain leading to the cess-pool.

BATH-TUB. Furnish and set a copper planished, medium sized bath-tub, as by the plan. Case up about it with pine sheathing, as for the kitchen wainscot, and carry a $1\frac{1}{2}$-inch lead waste pipe from the tub to the drain leading to the cesspool.

PAINTING.

Paint all the exterior and interior wood-work, the chimney tops, and the faced brick-work about the kitchen fire-place, two good coats of best American white lead and pure linseed oil. Paint the outside blinds three coats. Tint as directed.

Properly putty all nail holes and other imperfections of the wood-work requiring it, and size all knots with gum shellac before painting.

MATERIALS.

For the blinds, doors and sashes throughout, use the best clear white pine lumber.

For all the other wood finish, except where specified to the contrary herein, use white pine lumber, free from shakes, and large or bad knots.

All finishing materials to be perfectly sound and thoroughly seasoned.

The drawings herein referred to are to be considered as forming part of this specification, reference being made to them for the height of stories, and other dimensions, as well as for the general arrangement. And the contractor is to furnish all of the materials, and do all the labor required to complete the design, according to the evident intent of the drawings referred to and this specification; both the materials and the workmanship to be satisfactory to the Owner or his agent.

APPROVED FORM OF CONTRACT IN GENERAL USE.

Articles of Agreement, made this day of in the year one thousand eight hundred and

Between

of the First Part, and

of the Second Part.

First. The said part of the second part do hereby for heirs, executors and administrators, covenant, promise and agree to and with the said part of the first part, executors, administrators or assigns, that the said part of the second part executors or administrators, shall and will, for the consideration hereinafter mentioned, on or before the well and sufficiently erect and finish the new Building

agreeably to the Drawings and Specifications made by and signed by the said parties and hereunto annexed, within the time aforesaid, in a good, workmanlike and substantial manner, to the satisfaction, and under the direction of the said to be testified by a writing or certificate under the hand of the said and also shall and will find and provide such good, proper and sufficient materials, of all kinds whatsoever, as shall be proper and sufficient for the completing and finishing all the

and other works of the said Building mentioned in the Specification for the sum of

And the said part of the first part, do hereby, for heirs, executors and administrators, covenant, promise and agree, to and with the said part of the second part, executors and administrators, that the said part of the first part executors or administrators, shall and will, in consideration of the covenants and agreements being strictly performed and kept by the said part of the second part, as specified, well and truly pay, or cause to be paid, unto the said part of the second part executors, administrators or assigns, the sum of

Dollars, lawful money of the United States of America, in manner following:

Provided, that in each of the said cases, a certificate shall be obtained and signed by the said

And it is hereby further agreed by and between the said Parties:

First. The Specifications and Drawings are intended to co-operate, so that any works exhibited in the Drawings, and not mentioned in the Specifications, or *vice versa*, are to be executed the same as if they were mentioned in the Specifications and set forth in the Drawings, to the true meaning and intention of the said Drawings and Specifications, without any extra charge whatsoever.

Second. The Contractor, at his own proper cost and charges, is to provide all manner of materials and labor, scaffolding, implements, moulds, models, and cartage of every description, for the due performance of the several erections.

Third. Should the Owner, at any time during the progress of the said Building request any alteration, deviation, additions or omissions from the said contract, he shall be at liberty to do so, and the same shall in no way affect or make void the contract, but will be added to or deducted from the amount of the contract, as the case may be, by a fair and reasonable valuation.

Fourth. Should the Contractor, at any time during the progress of the said work, refuse or neglect to supply a sufficiency of materials and workmen, the Owner shall have the power to provide materials and workmen, after three days notice in writing being given, to finish the said work, and the expenses shall be deducted from the amount of the contract.

Fifth. Should any dispute arise respecting the true construction or meaning of the Drawings or Specifications, the same shall be decided by and decision shall be final and conclusive; but should any dispute arise respecting the true value of the extra work, or of the works omitted, the same shall be valued by two competent persons—one employed by the Owner, and the other by the Contractor—and those two shall have power to name an umpire, whose decision shall be binding on all parties.

Sixth. The Owner shall not, in any manner, be answerable or accountable for any loss or damage that shall or may happen to the said works, or any part or parts thereof respectively, or for any of the materials or other things used and employed in finishing and completing the same (loss or damage by fire excepted).

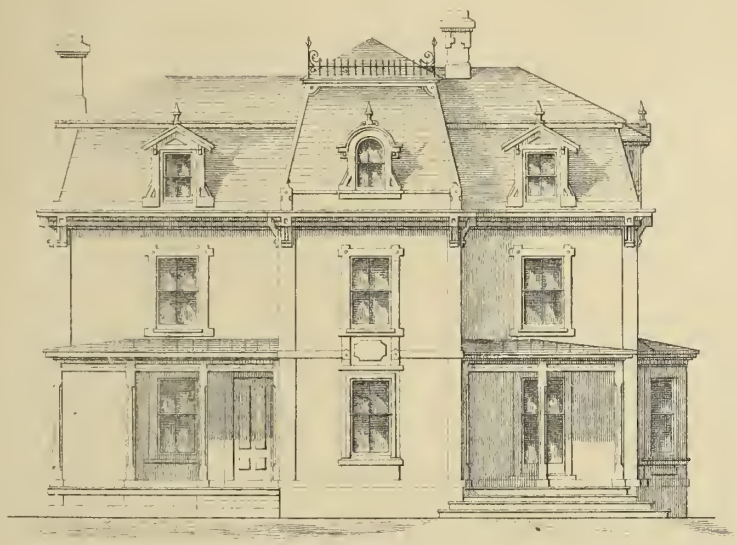
In Witness whereof, the said parties to these presents have hereunto set their hands and seals, the day and year above written.

48

Five CENT Revenue Stamp.

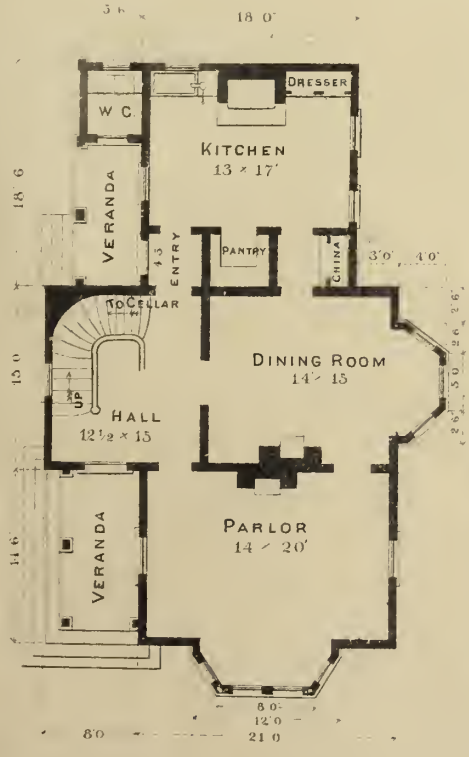
Design No. 18.

Plate No. 71.

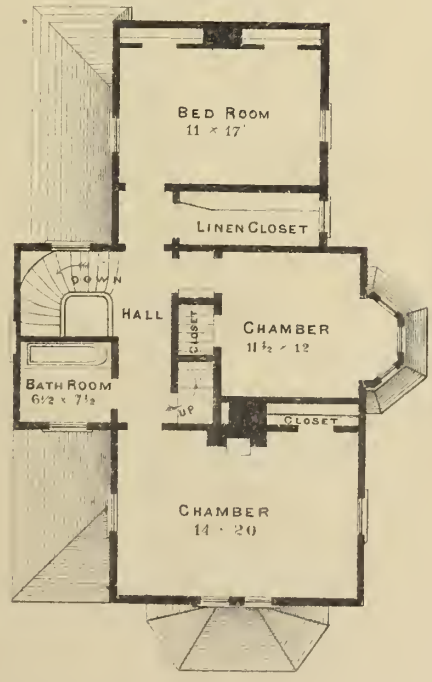


SIDE ELEVATION.

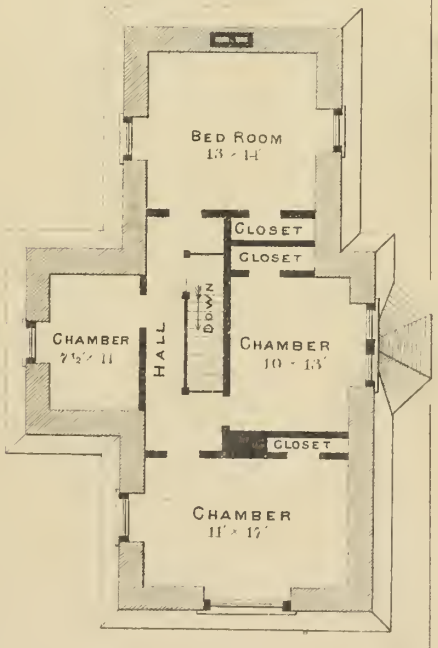
FRONT ELEVATION.



FIRST FLOOR PLAN



SECOND FLOOR PLAN



THIRD FLOOR PLAN

Design No. 19.

Plate No. 72.

FRONT ELEVATION.

SCALE. 0 3/32 Inch to One Foot

Engr'd print by KORFF BROTHERS 54 William St N

Design No. 19.

Plate No. 73.

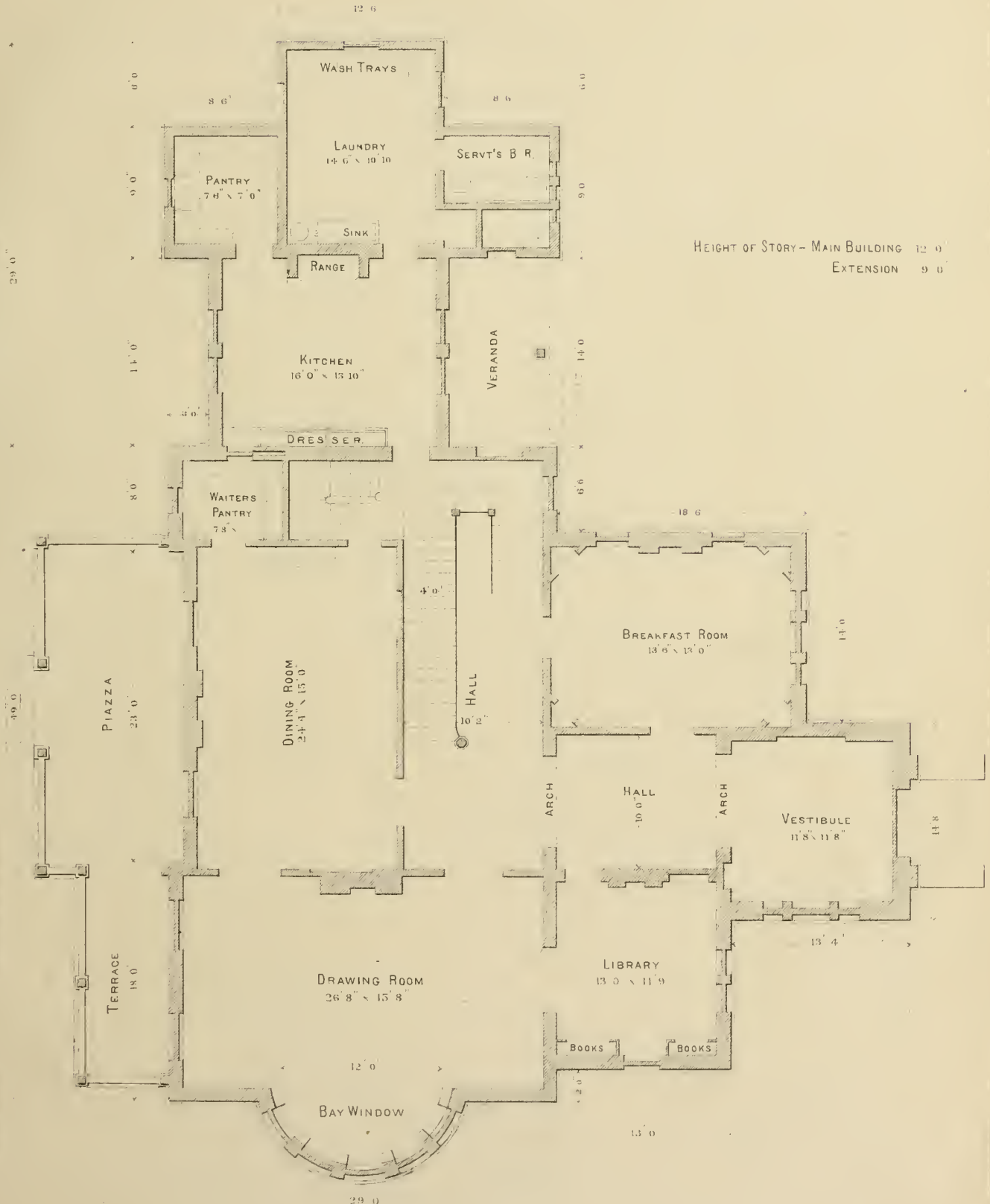
SIDE ELEVATION.

SCALE. 0 3/32 Inch to One Foot.

Engr & print by KEREL BROTHERS 54 W

Design No. 19.

Plate No. 74.



GROUND PLAN.

SCALE. 0 3/32 Inch to One Foot.

Design No. 19.

Plate No. 75.

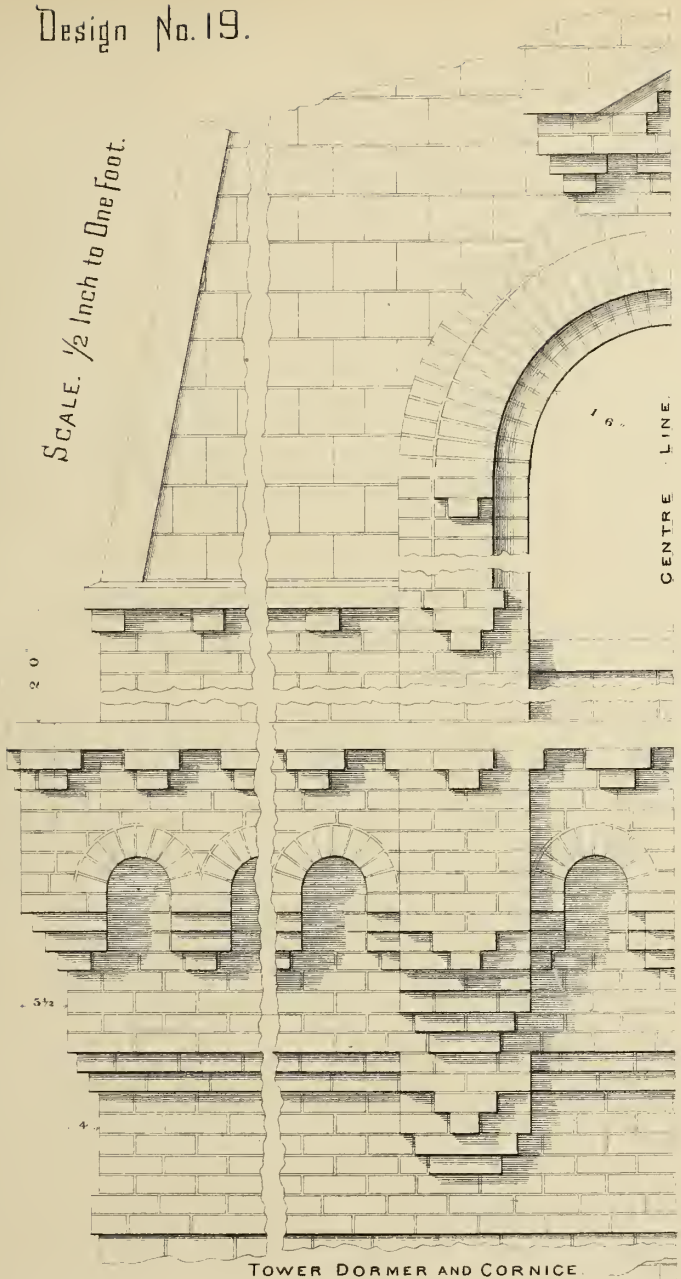
Chamber Plan.

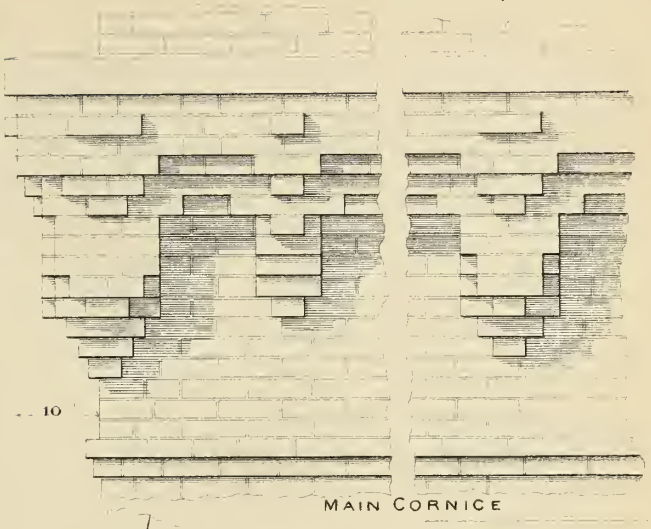
Scale 0 3/32 Inch to One Foot.

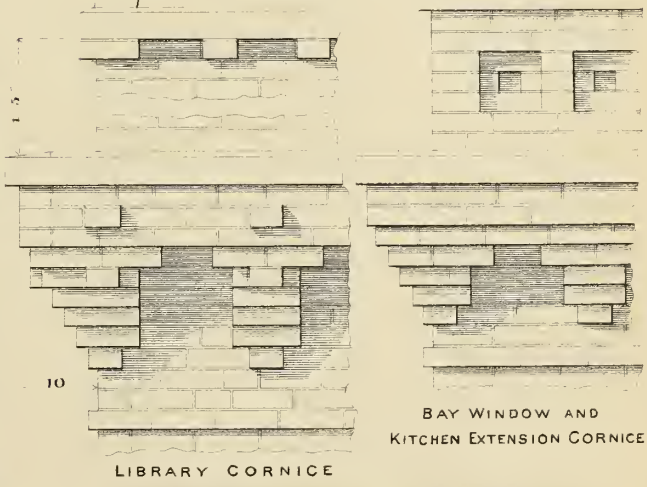
Design No. 19.

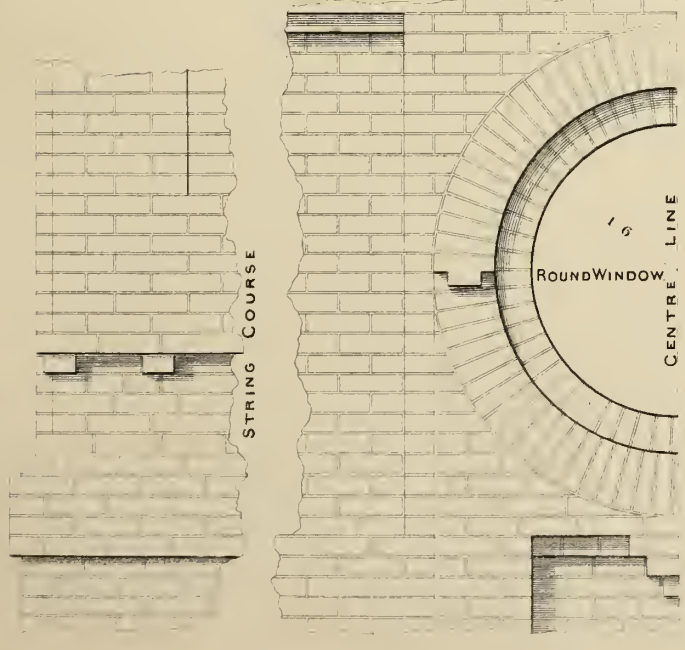
Plate No. 76

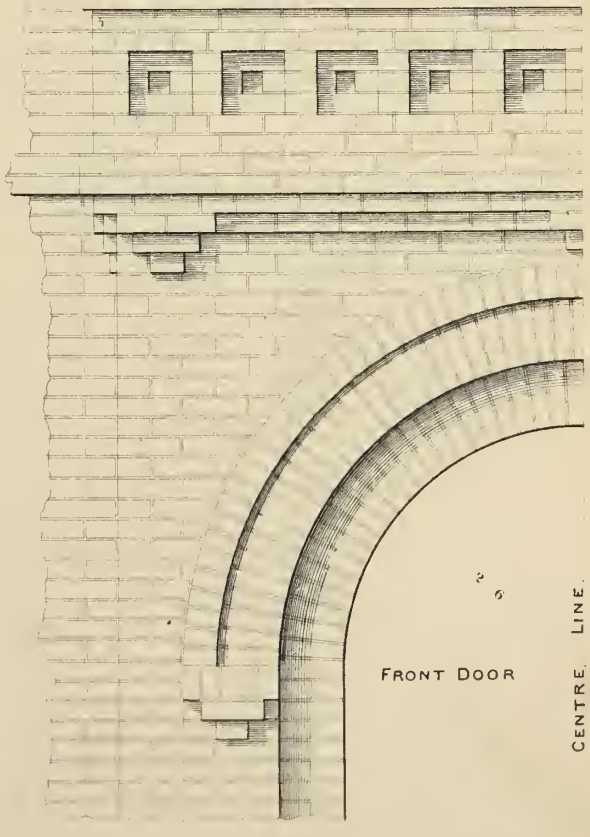
Scale. ½ Inch to One Foot.







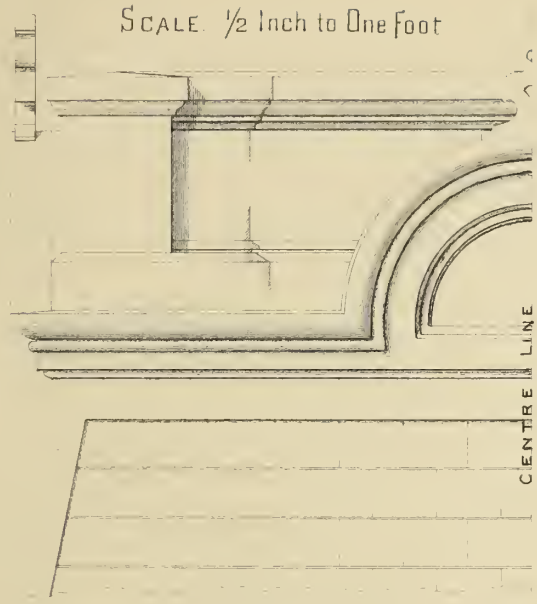




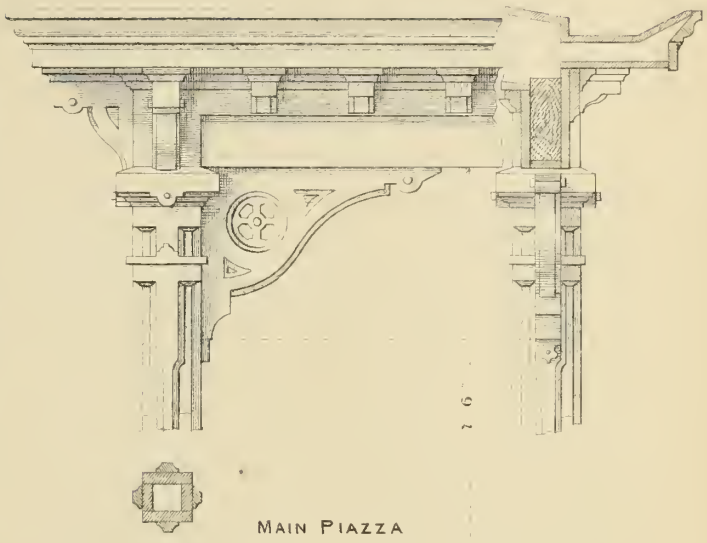
Design No. 19.

Plate No. 77.

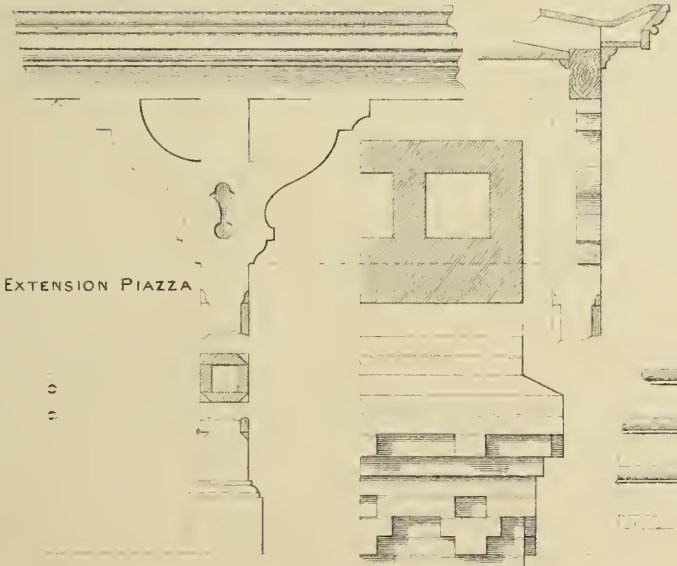
SCALE. ½ Inch to One Foot



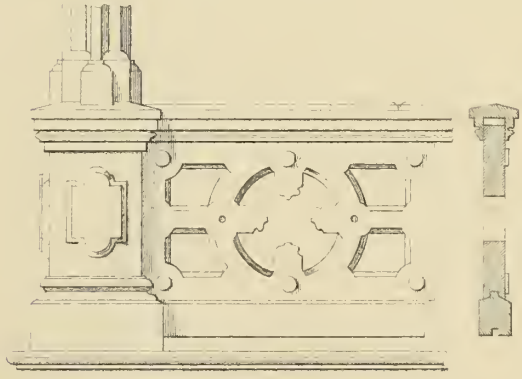
TOWER CREST RAIL

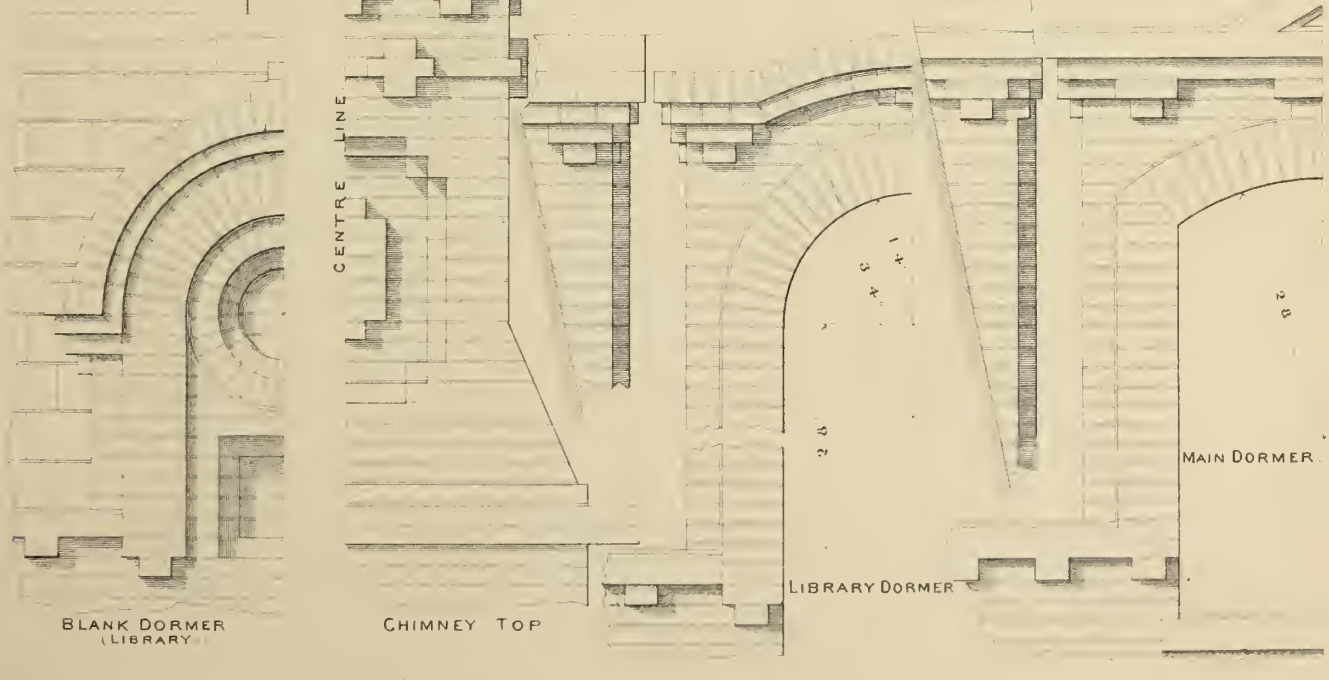


MAIN PIAZZA



EXTENSION PIAZZA



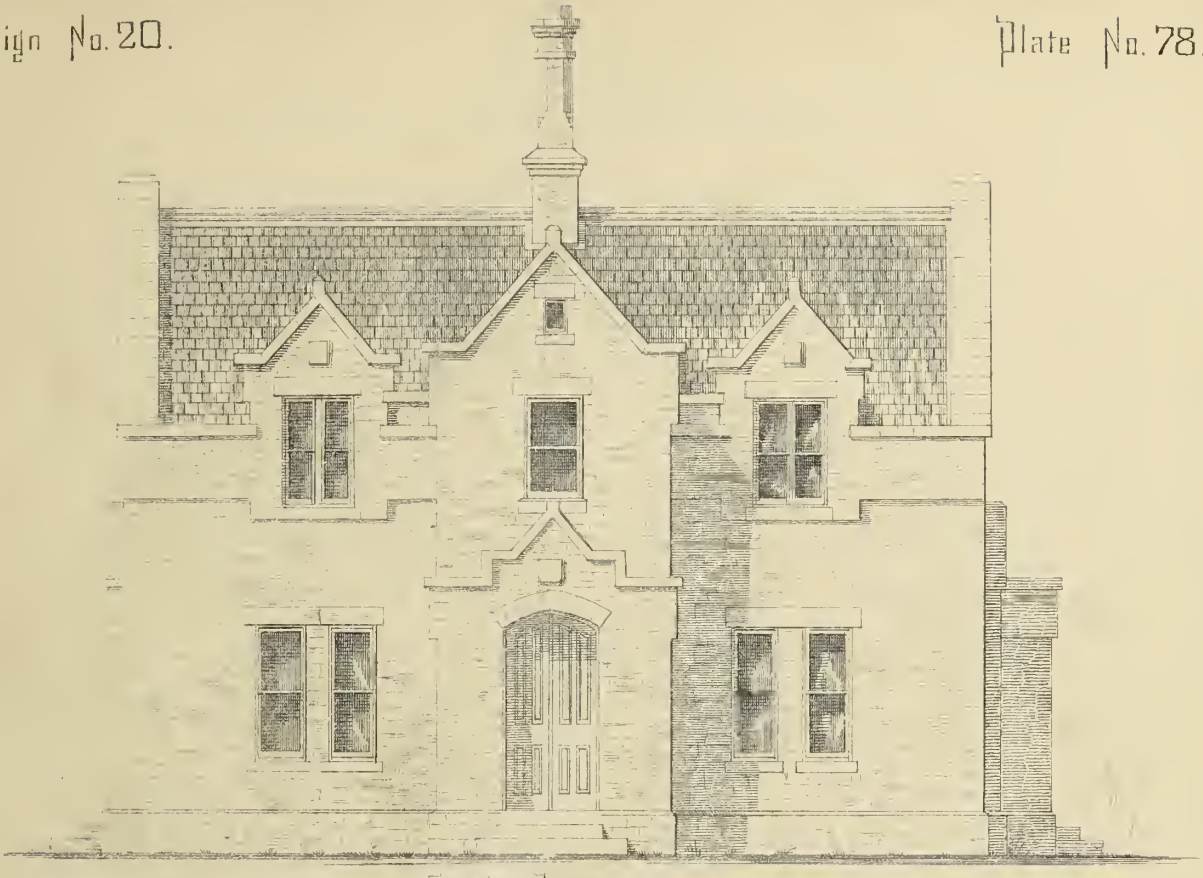


BLANK DORMER (LIBRARY)

CHIMNEY TOP

Design No. 20.

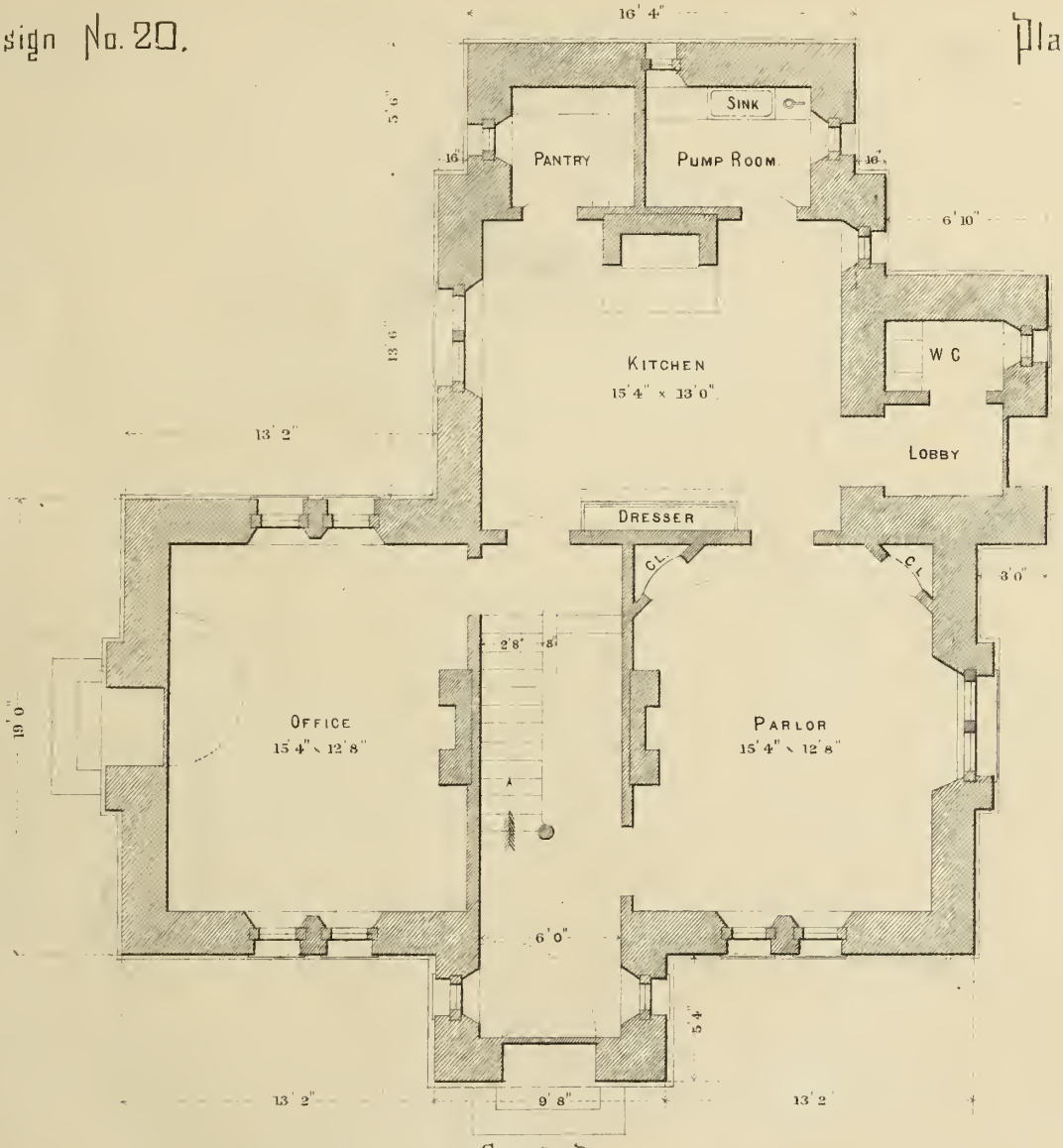
Plate No. 78.



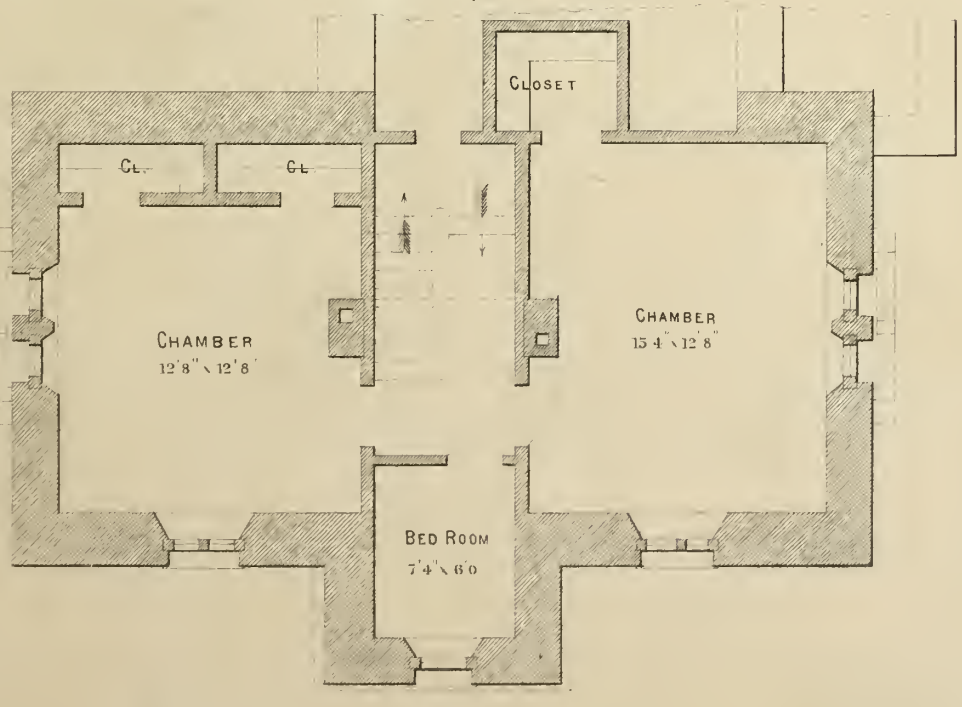
FRONT ELEVATION.

Design No. 20.

Plate No. 79.



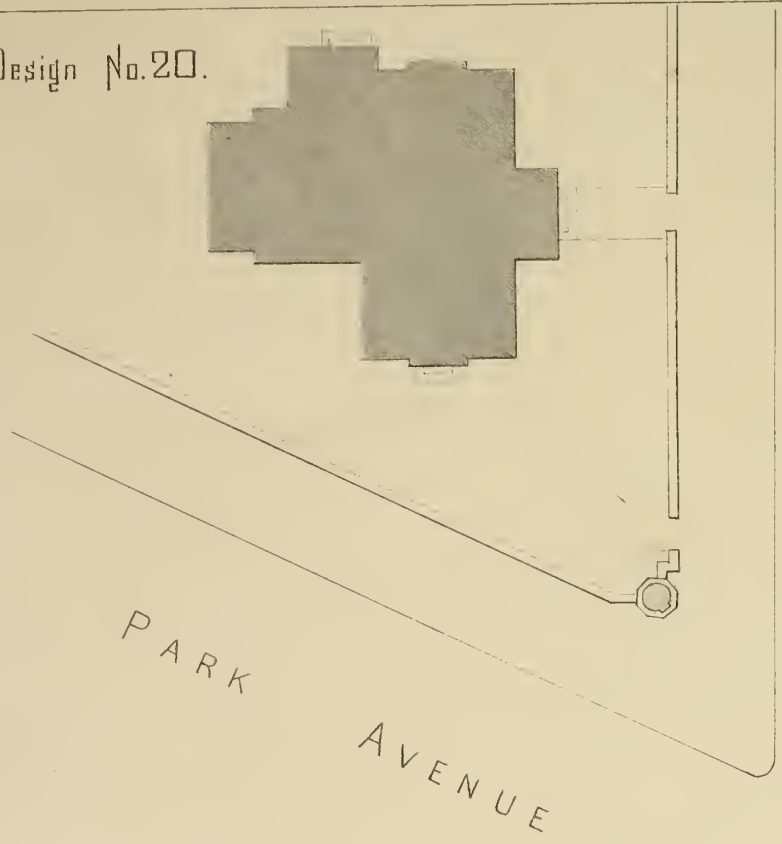
GROUND PLAN.

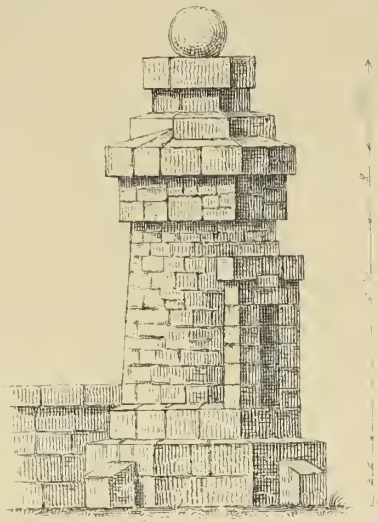


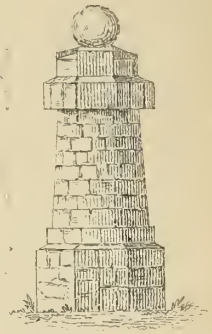
CHAMBER PLAN

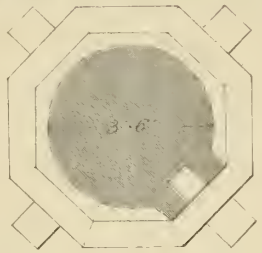
Design No. 20.

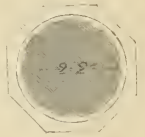
Plate No. 80.









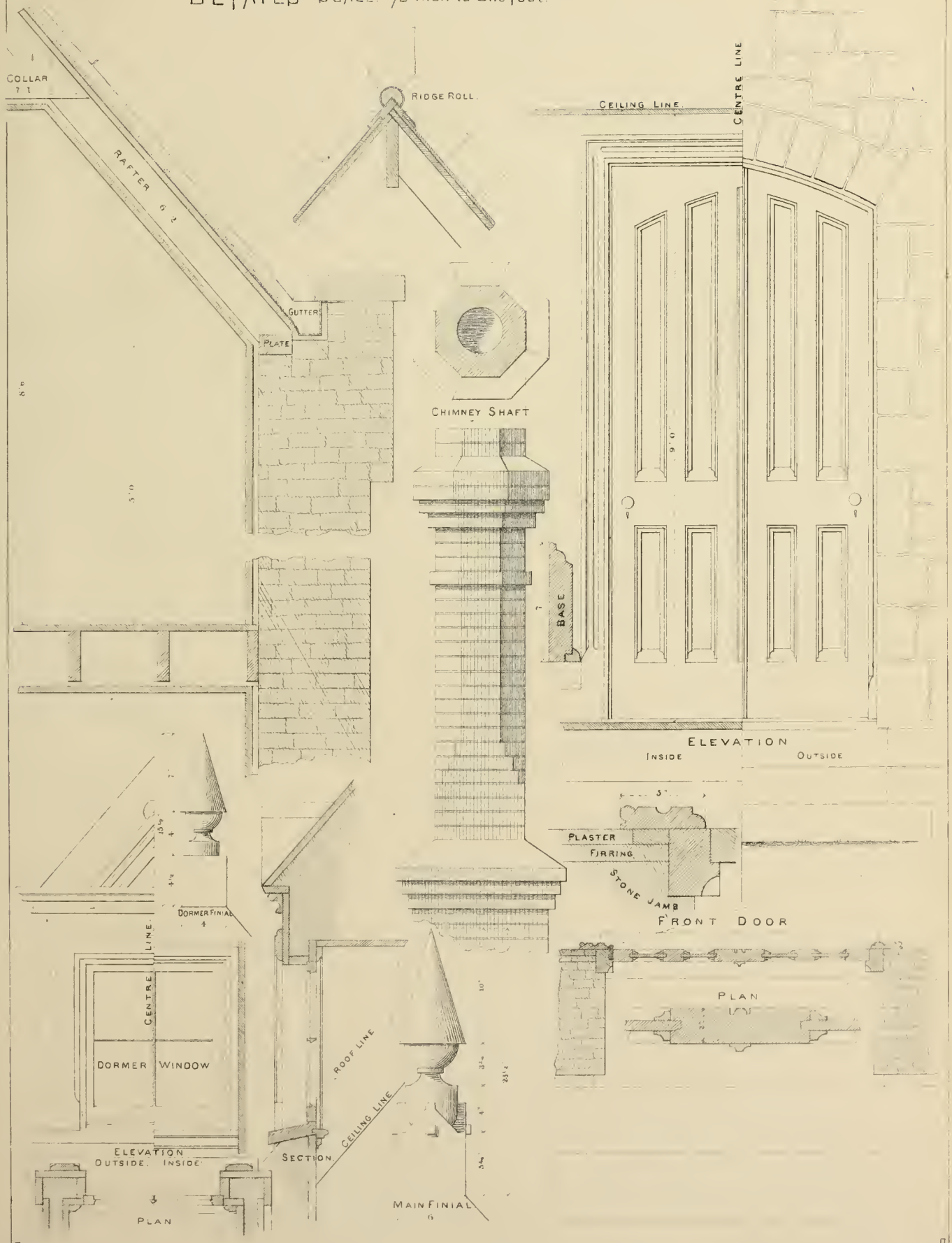


SCALE. 1/16 Inch to One Foot

Design No. 20.

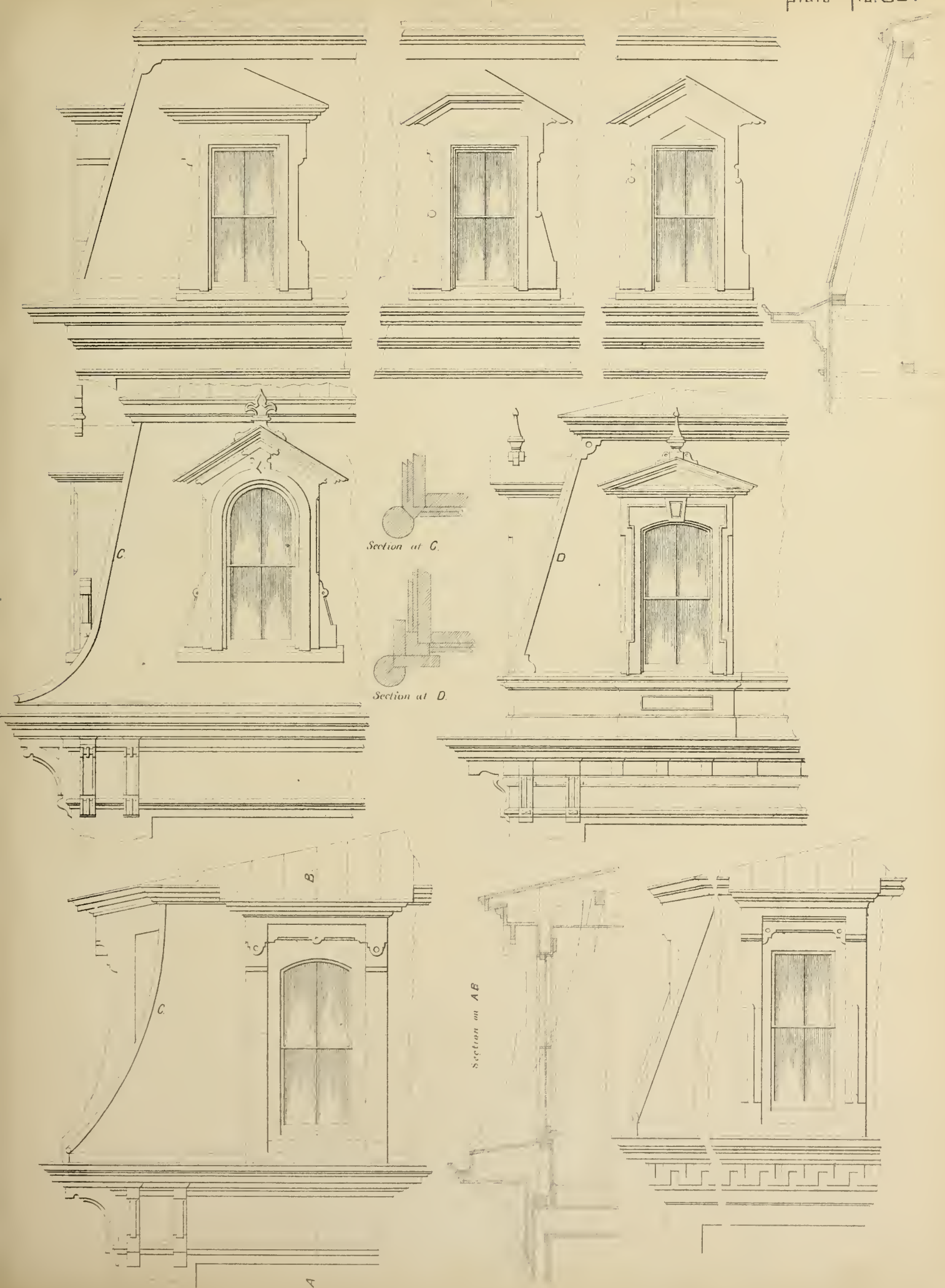
Plate No. 81.

DETAILS Scale. ½ Inch to One Foot.



Engr. & print. by KORFF BROTHERS 54 William St NY

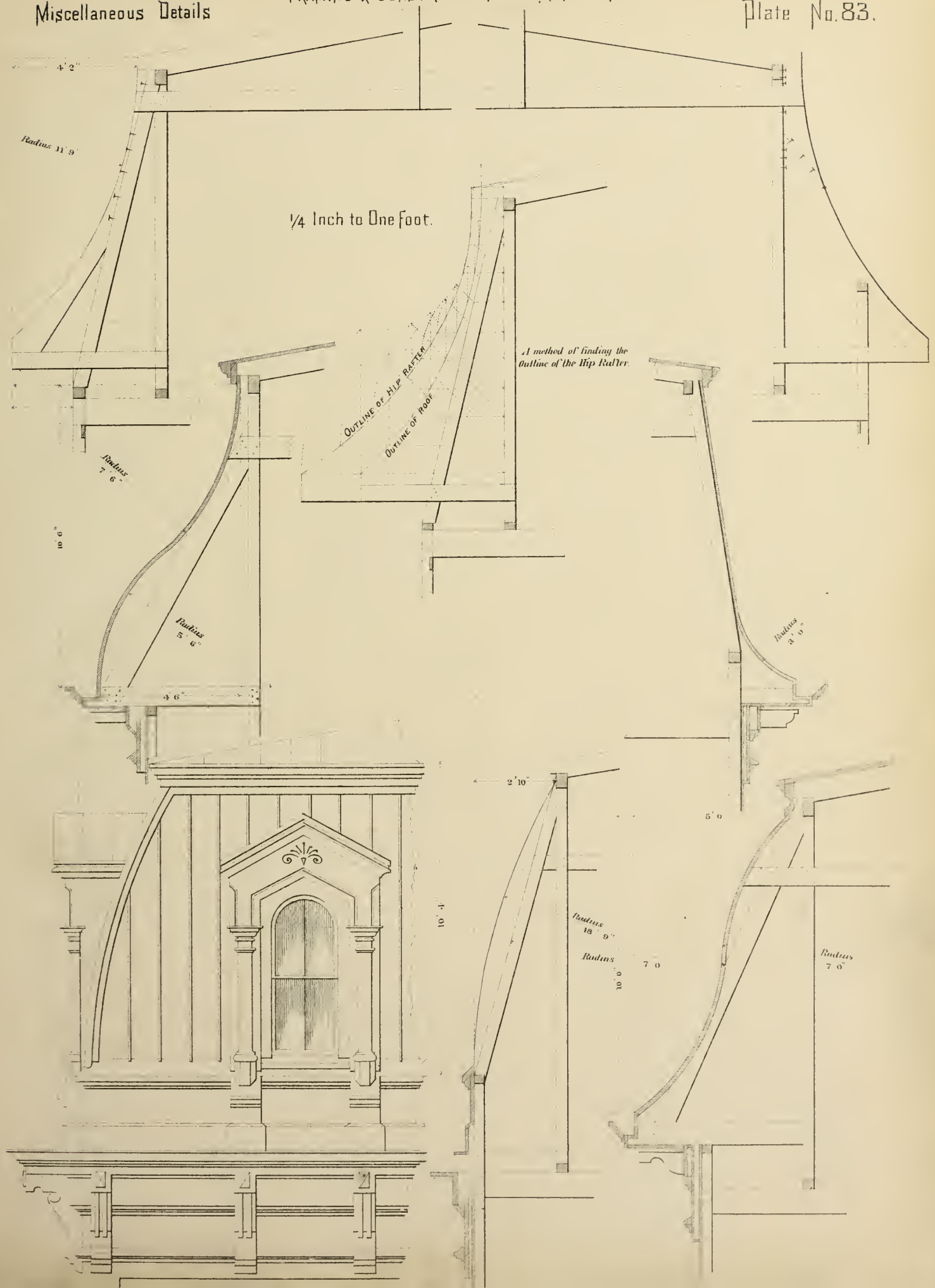
FRENCH ROOFS.



Miscellaneous Details

FRAMING & CONSTRUCTION OF FRENCH ROOFS.

Plate No. 83.

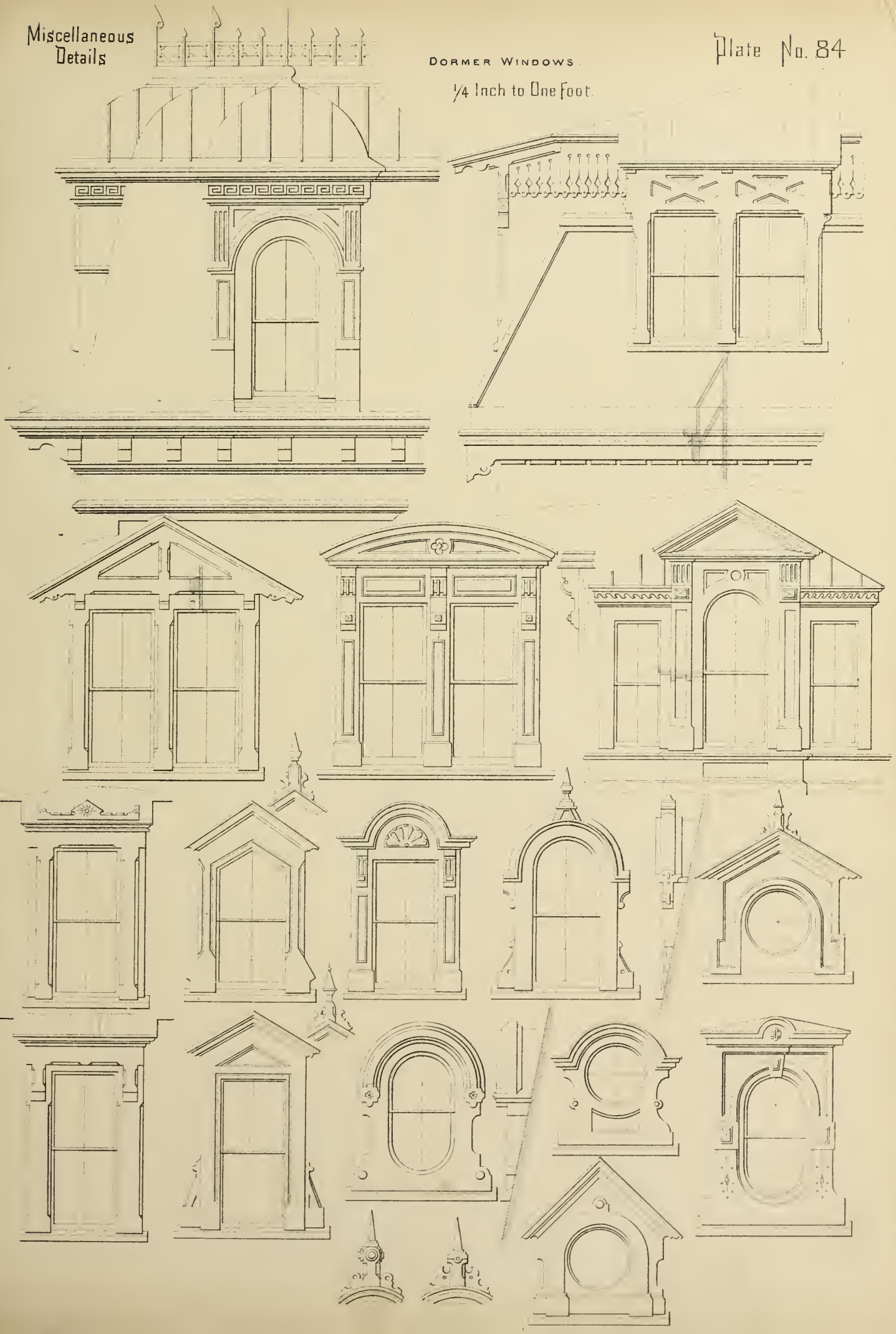


Miscellaneous Details

Dormer Windows.

Plate No. 84

1/4 Inch to One Foot.

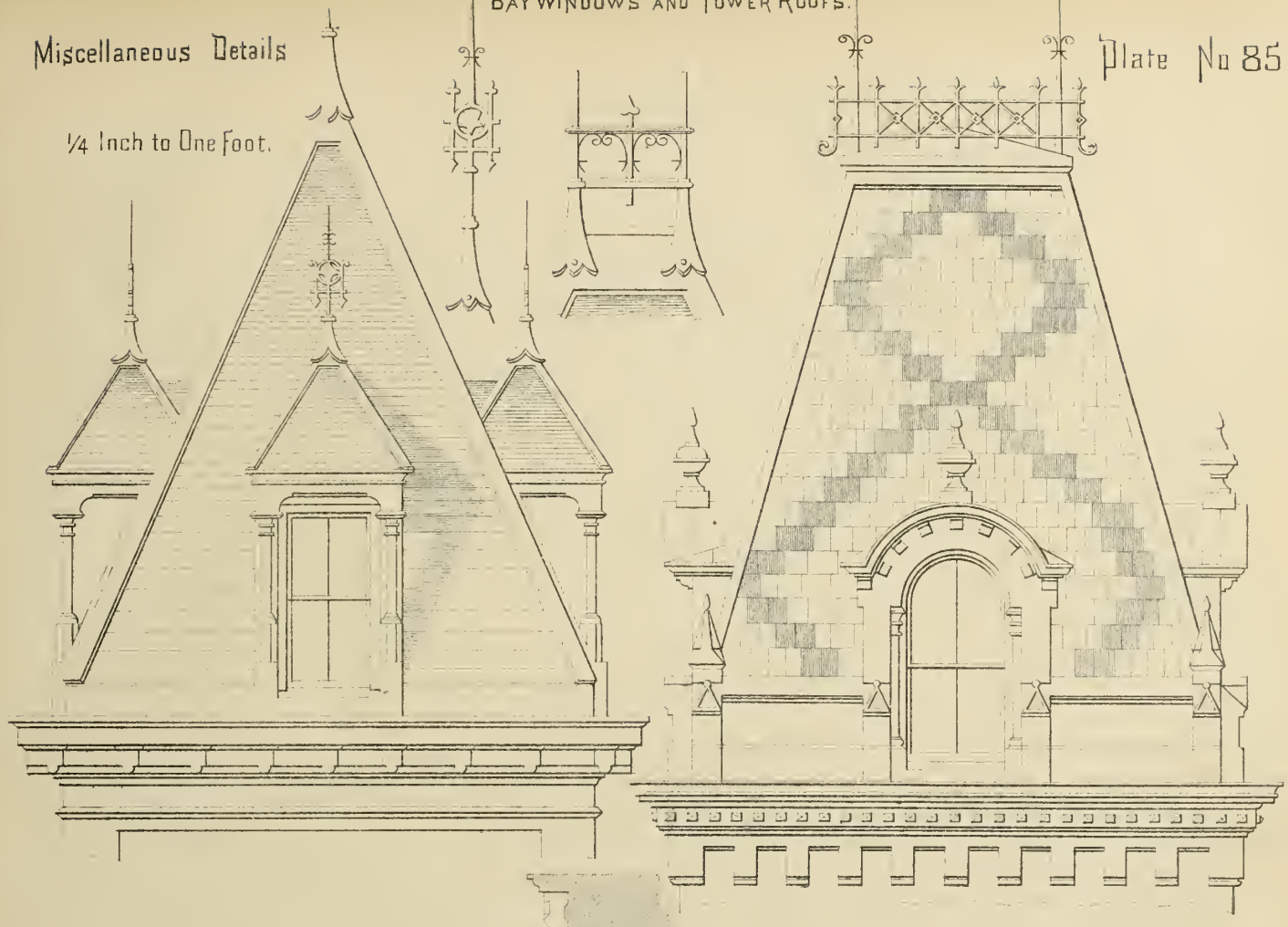


BAY WINDOWS AND TOWER ROOFS.

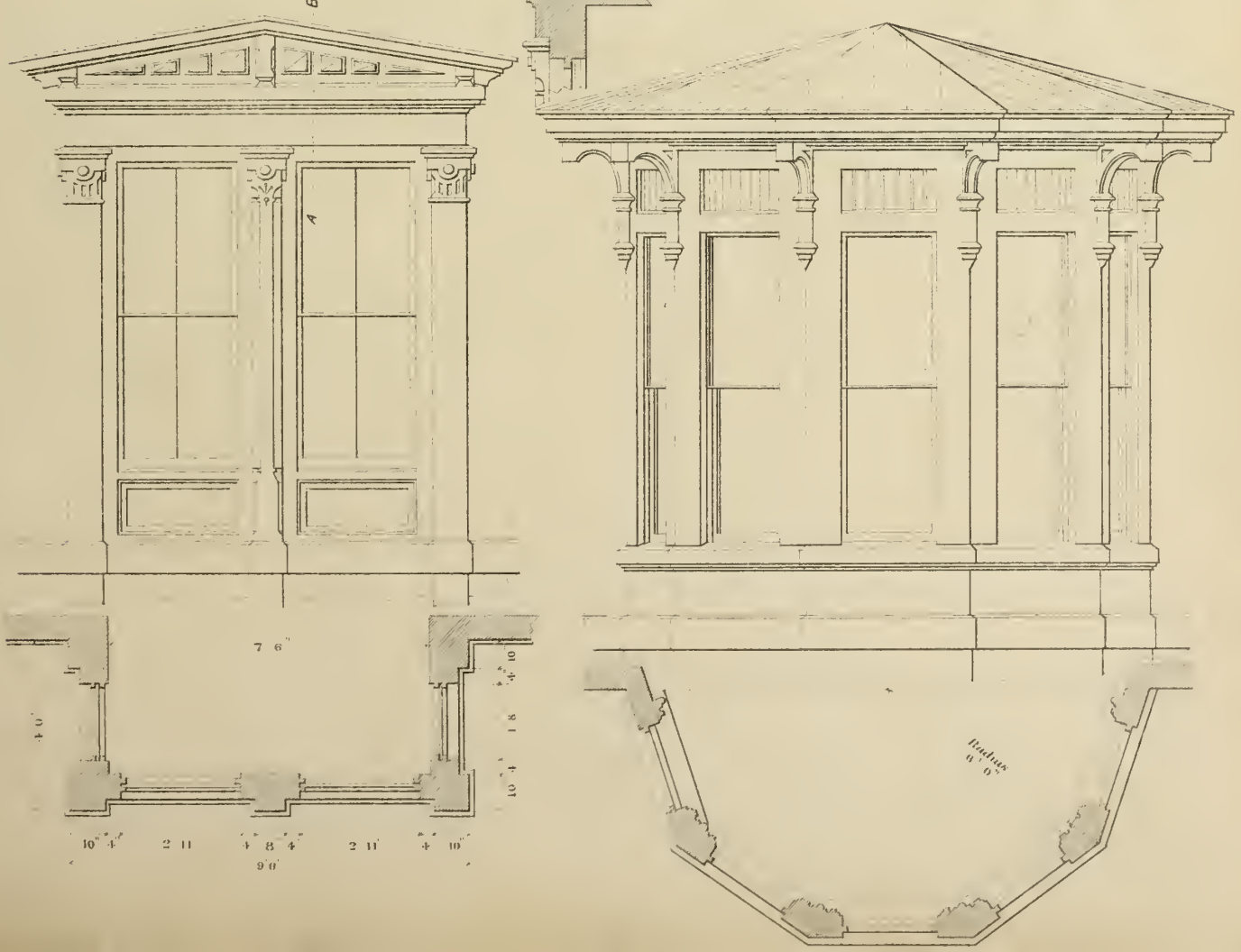
Miscellaneous Details

Plate No 85.

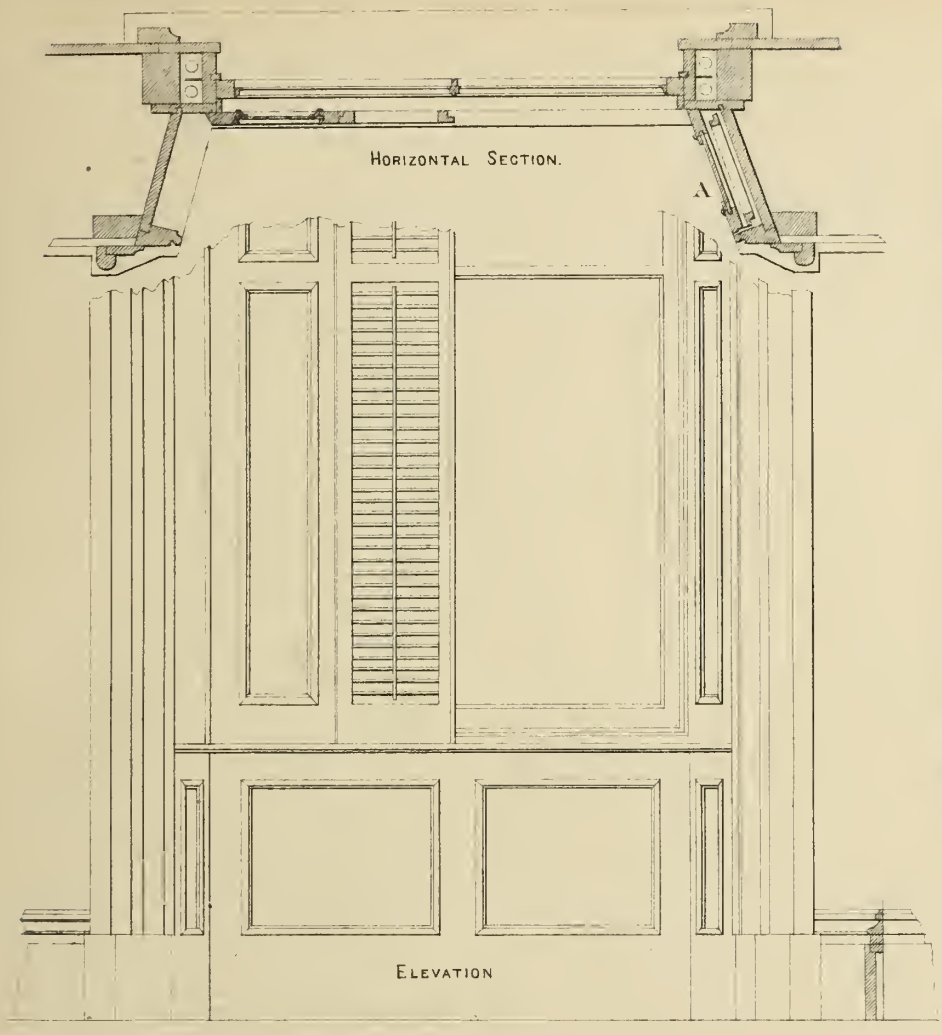
¼ Inch to One Foot.



Section on A B

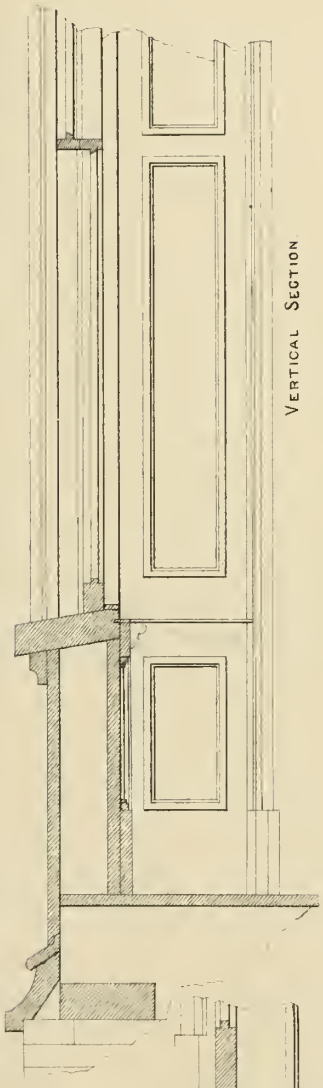


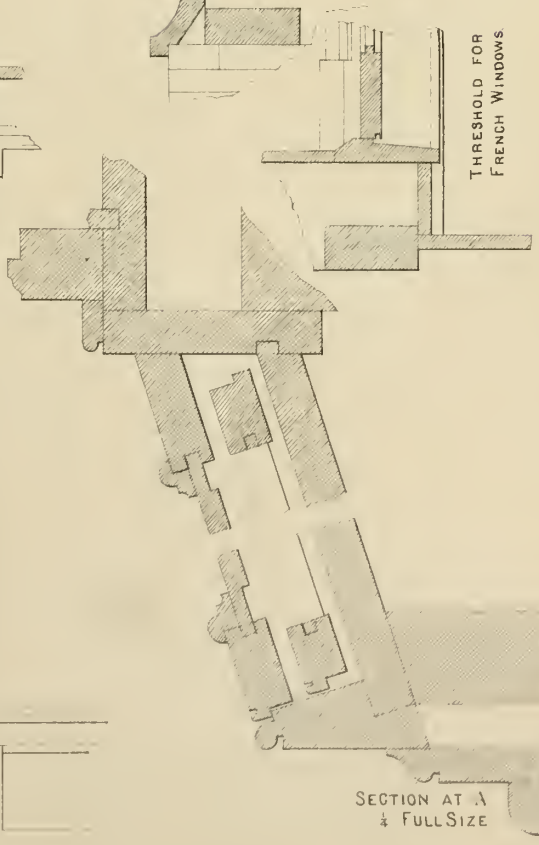
UNIVERSITY OF
LIBRARY

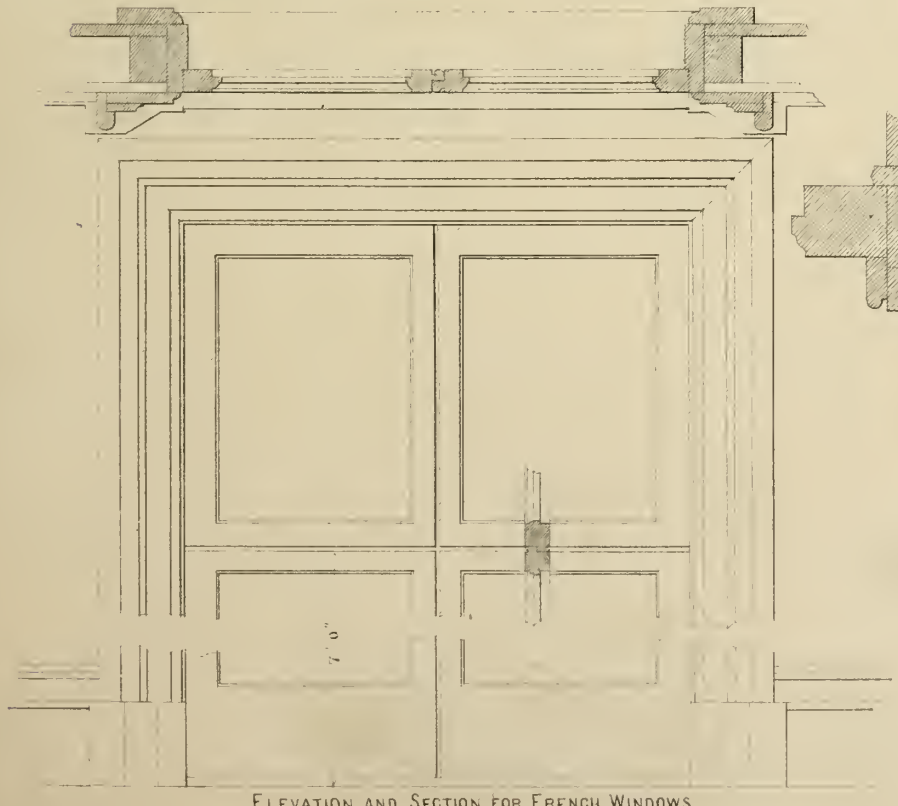


Details for Inside Shutters.

3/4 Inch to One Foot.



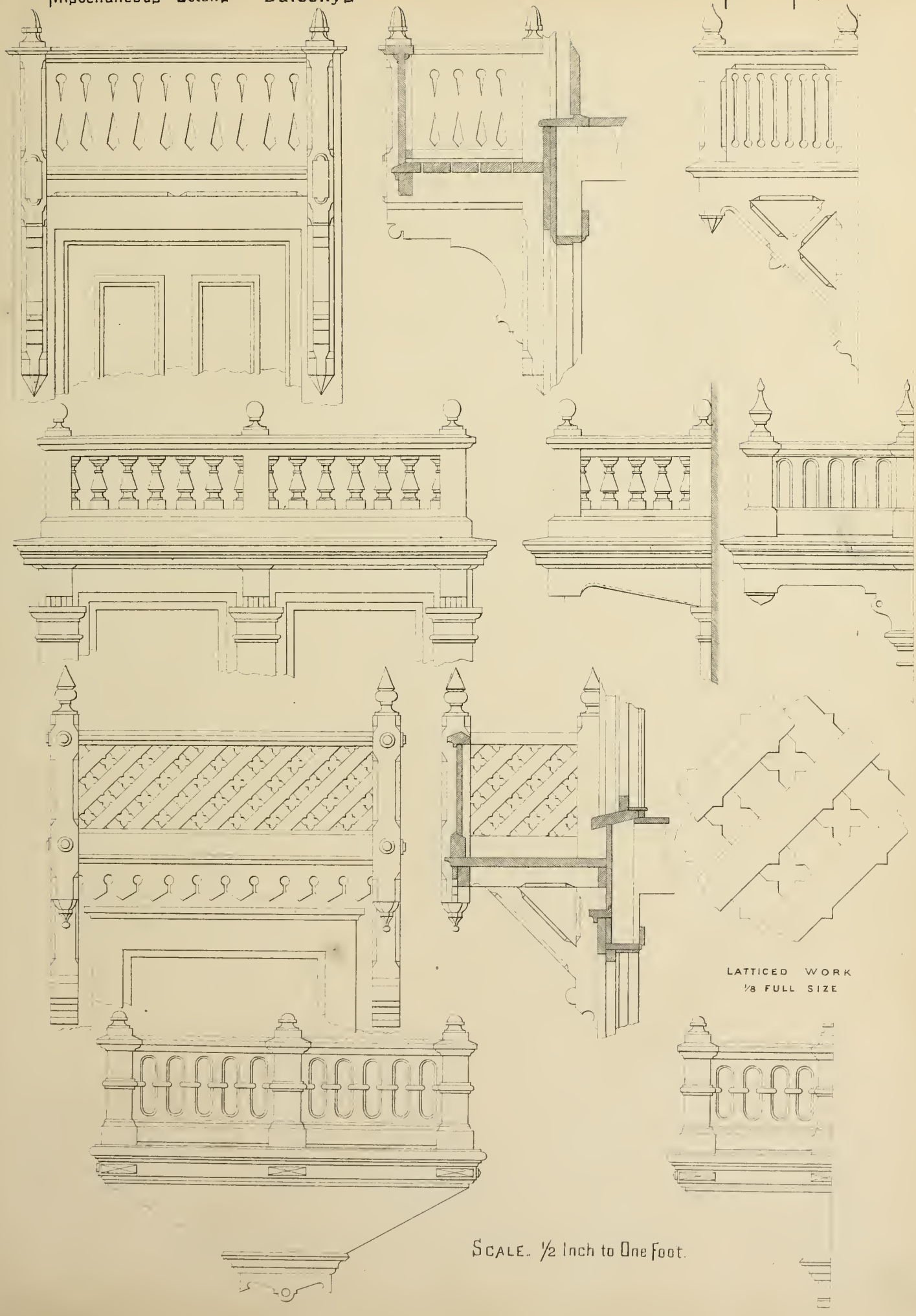




Elevation and Section for French Windows

Miscellaneous Details Balconys

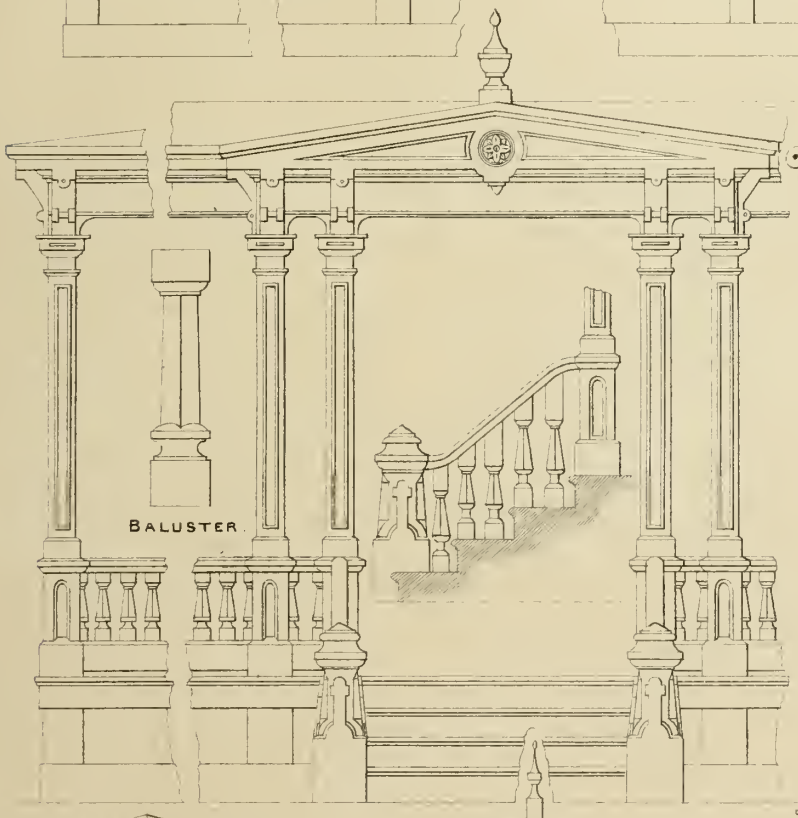
Plate No. 87.

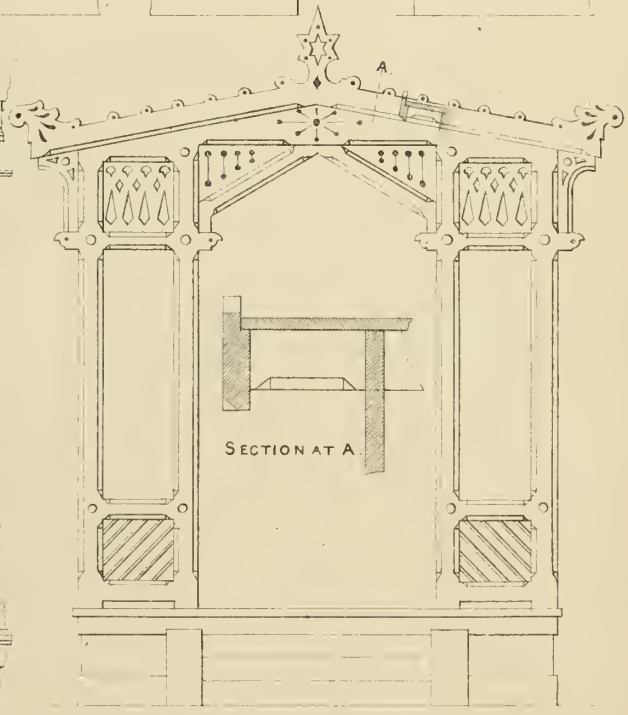


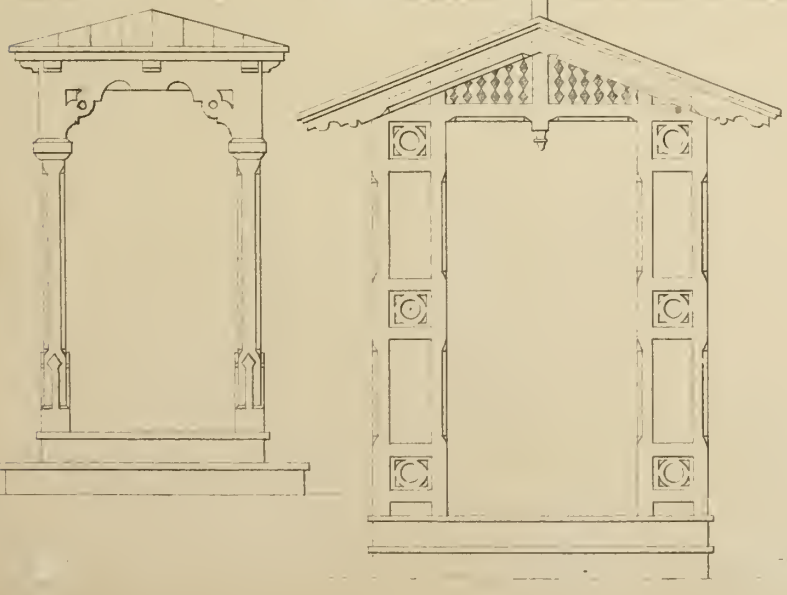
LATTICED WORK
⅛ FULL SIZE

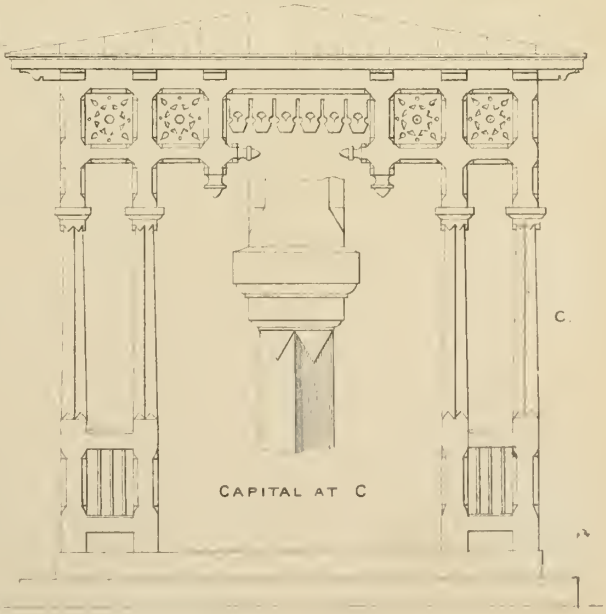
SCALE. ½ Inch to One Foot.

1/4 INCH TO THE FOOT.
ENLARGED DETAILS 1 INCH TO THE FOOT
SECTION AT P
P
SECTION AT R
R

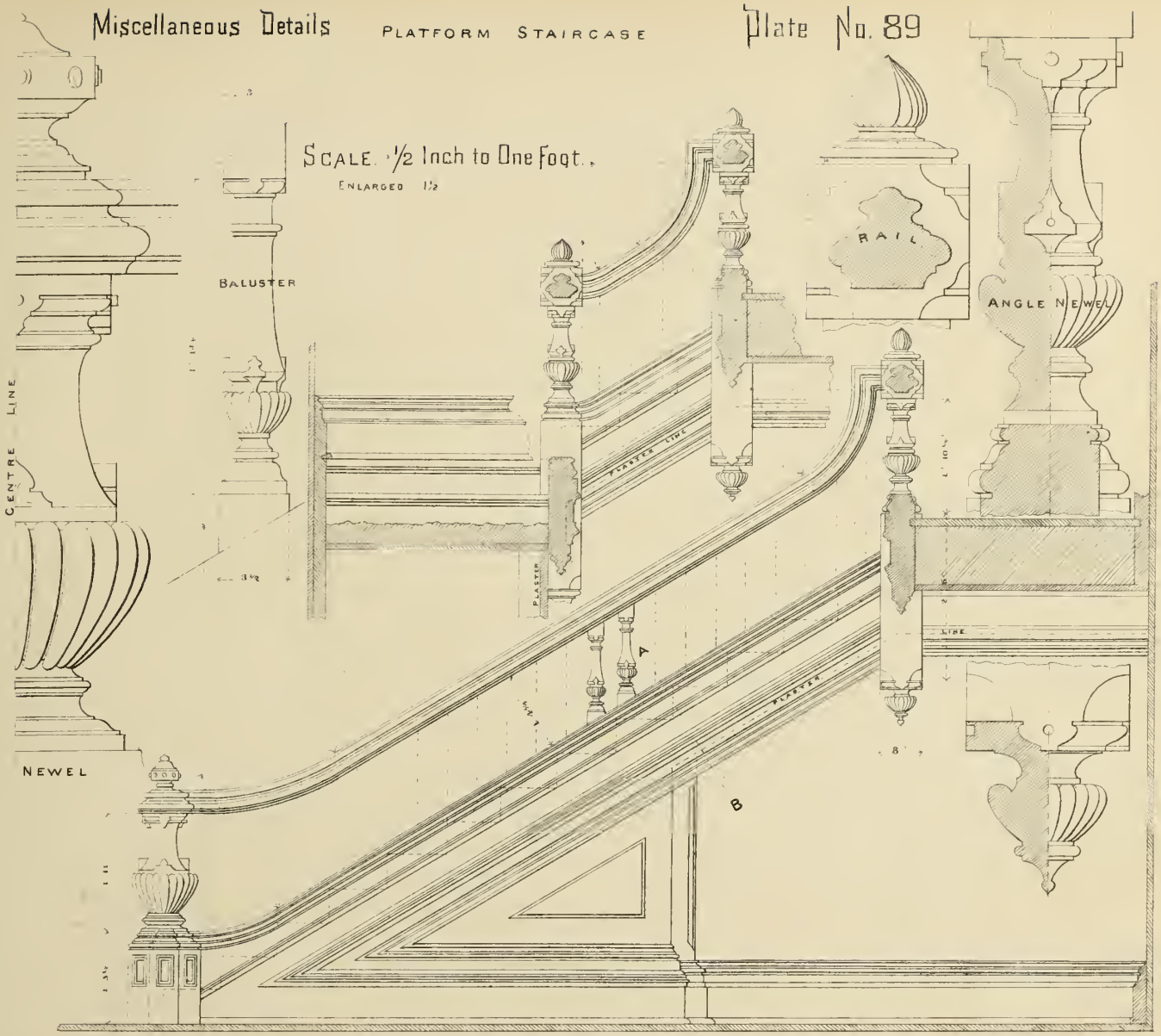

BALUSTER.

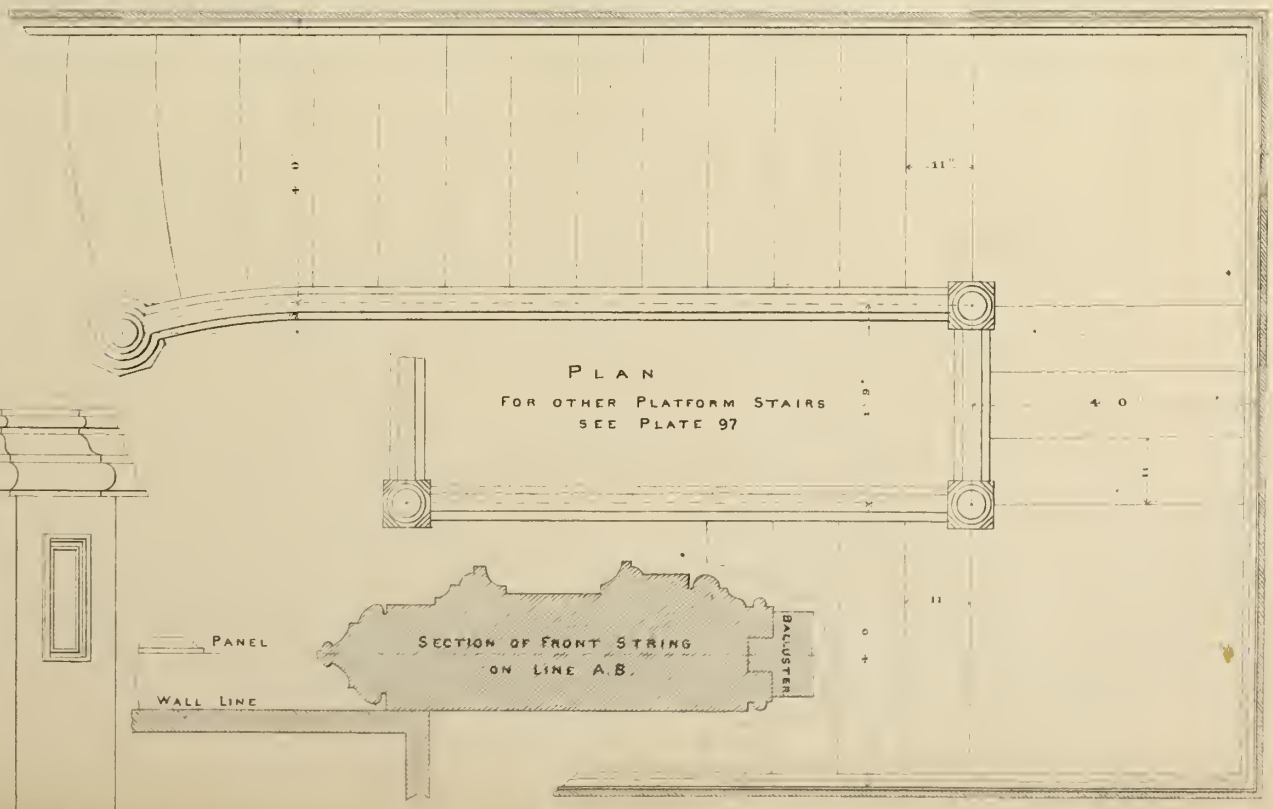

A.
SECTION AT A.




C.
CAPITAL AT C

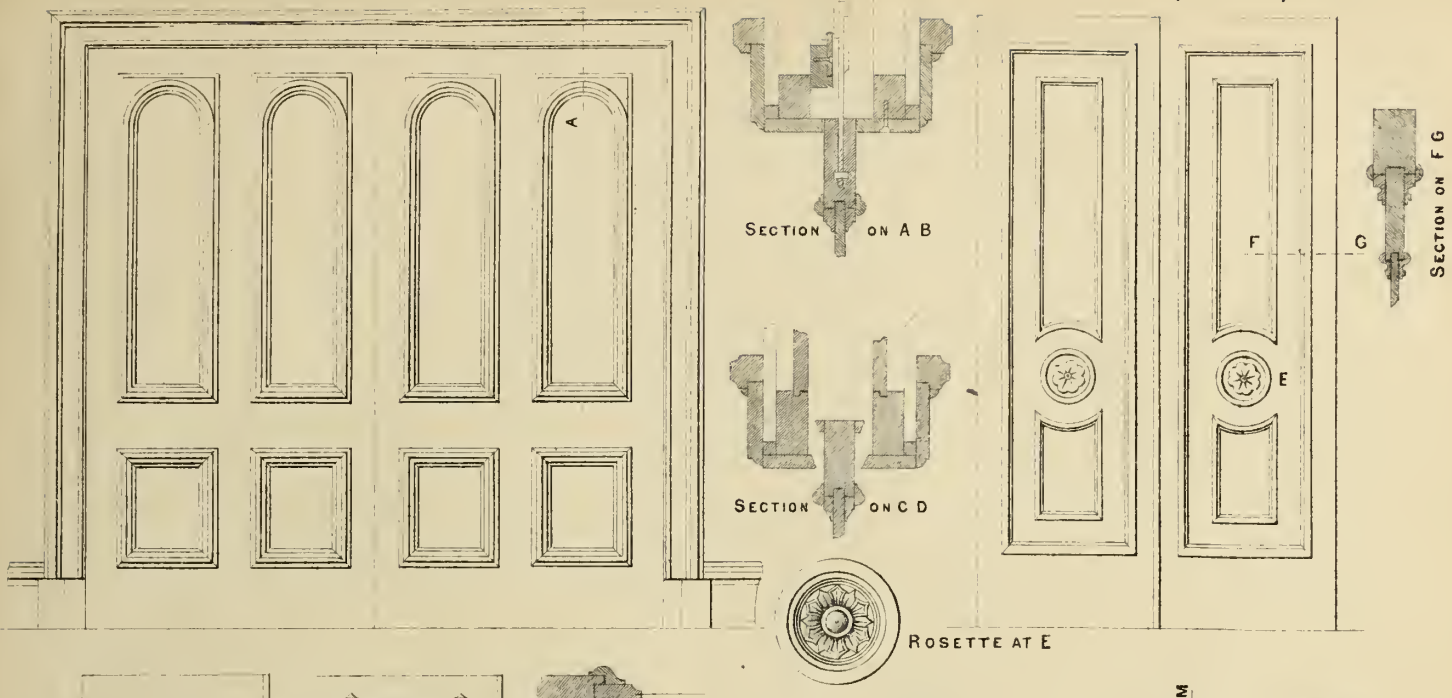
Miscellaneous Details — Platform Staircase — Plate No. 89

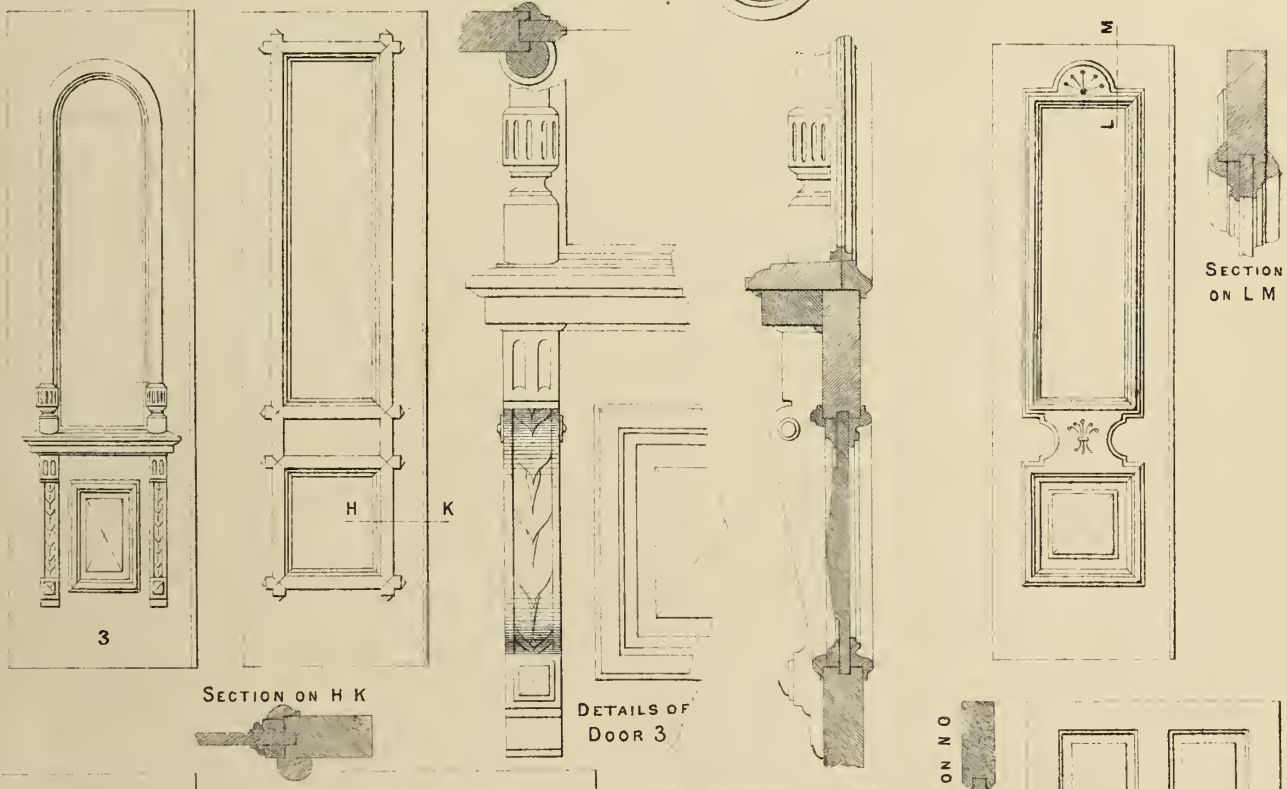


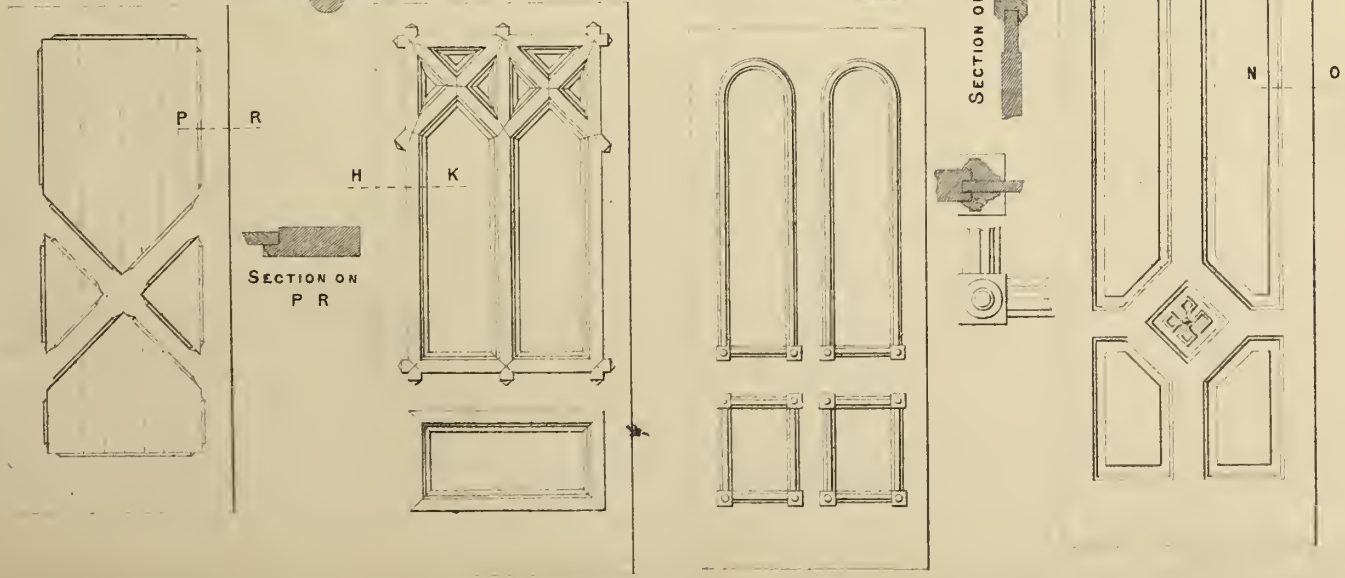


Miscellaneous Details Doors

Plate No. 90.







Miscellaneous Details Window-Finish

Plate No. 91.

¼ Inch to One Foot.

Miscellaneous Details

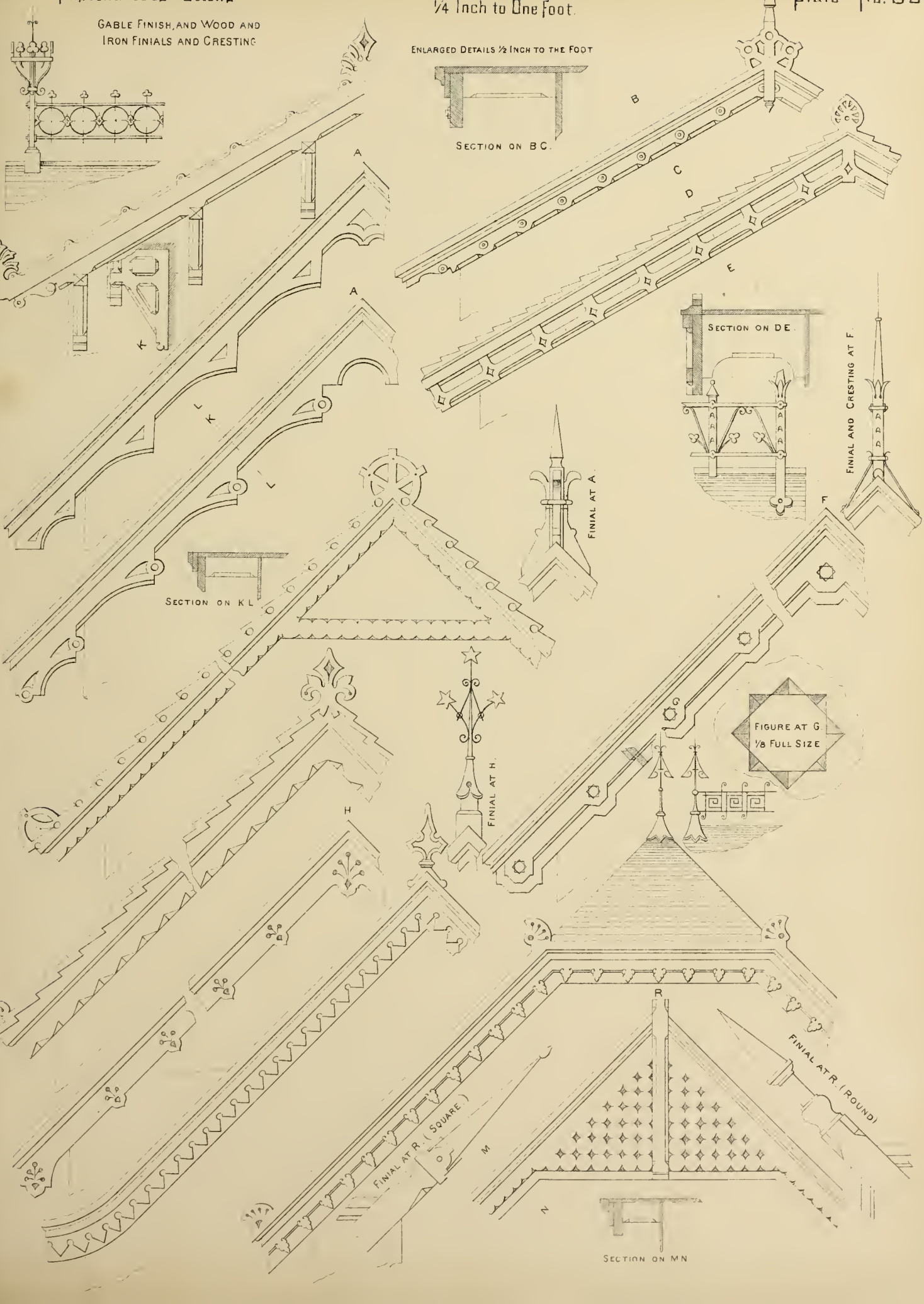
Plate No. 92

1/4 Inch to One Foot.

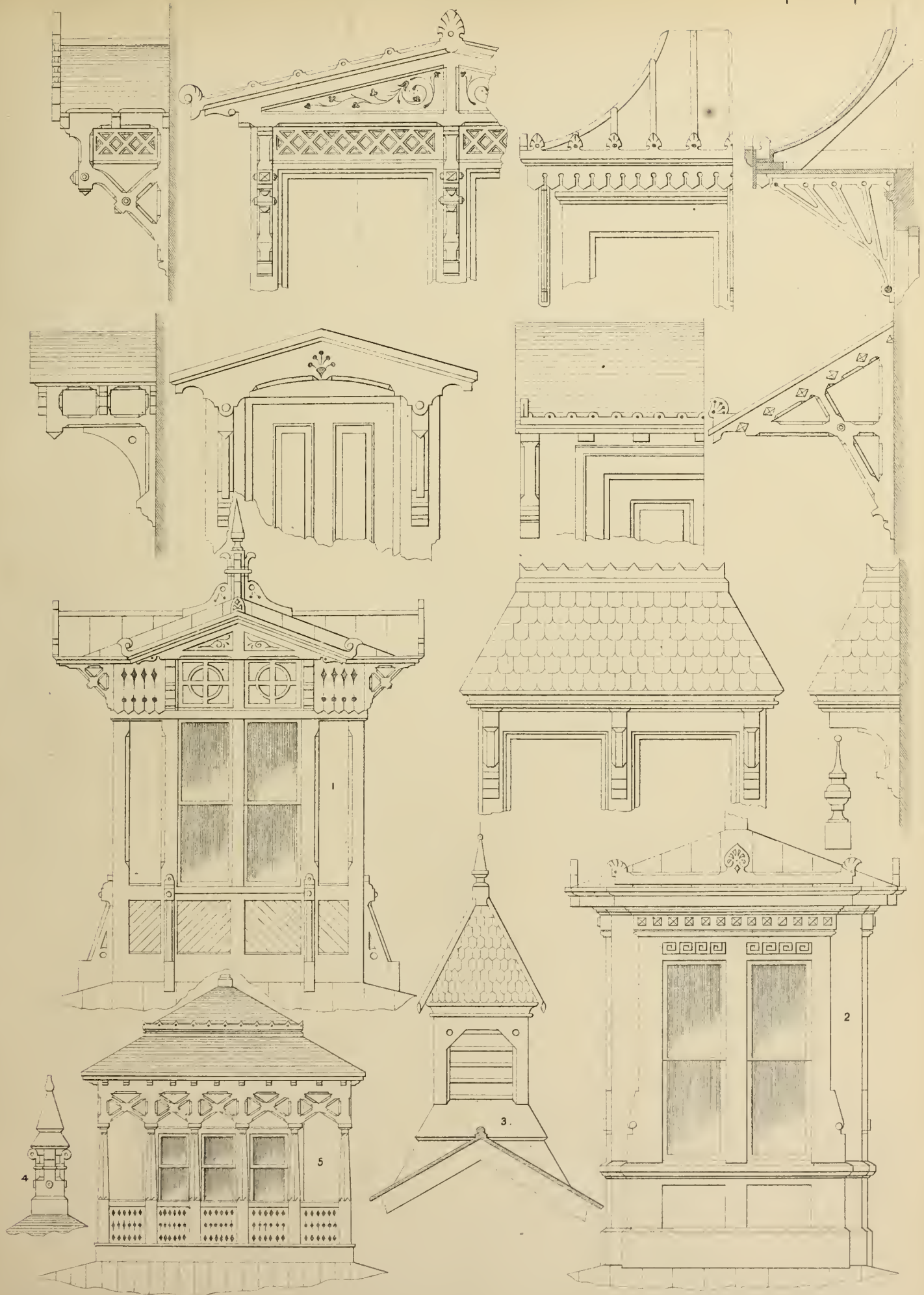
GABLE FINISH, AND WOOD AND IRON FINIALS AND CRESTING

ENLARGED DETAILS 1/2 INCH TO THE FOOT

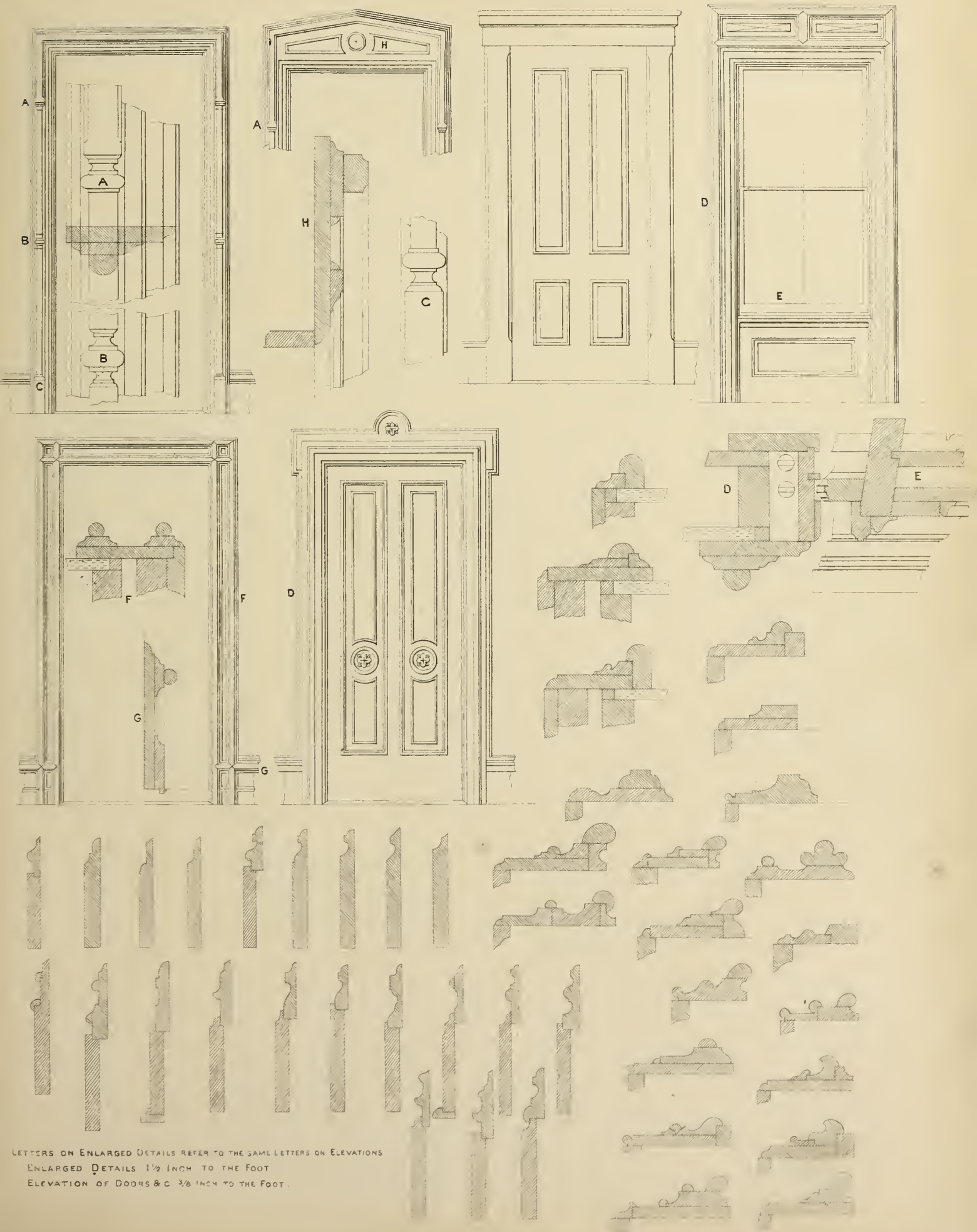
SECTION ON BC.



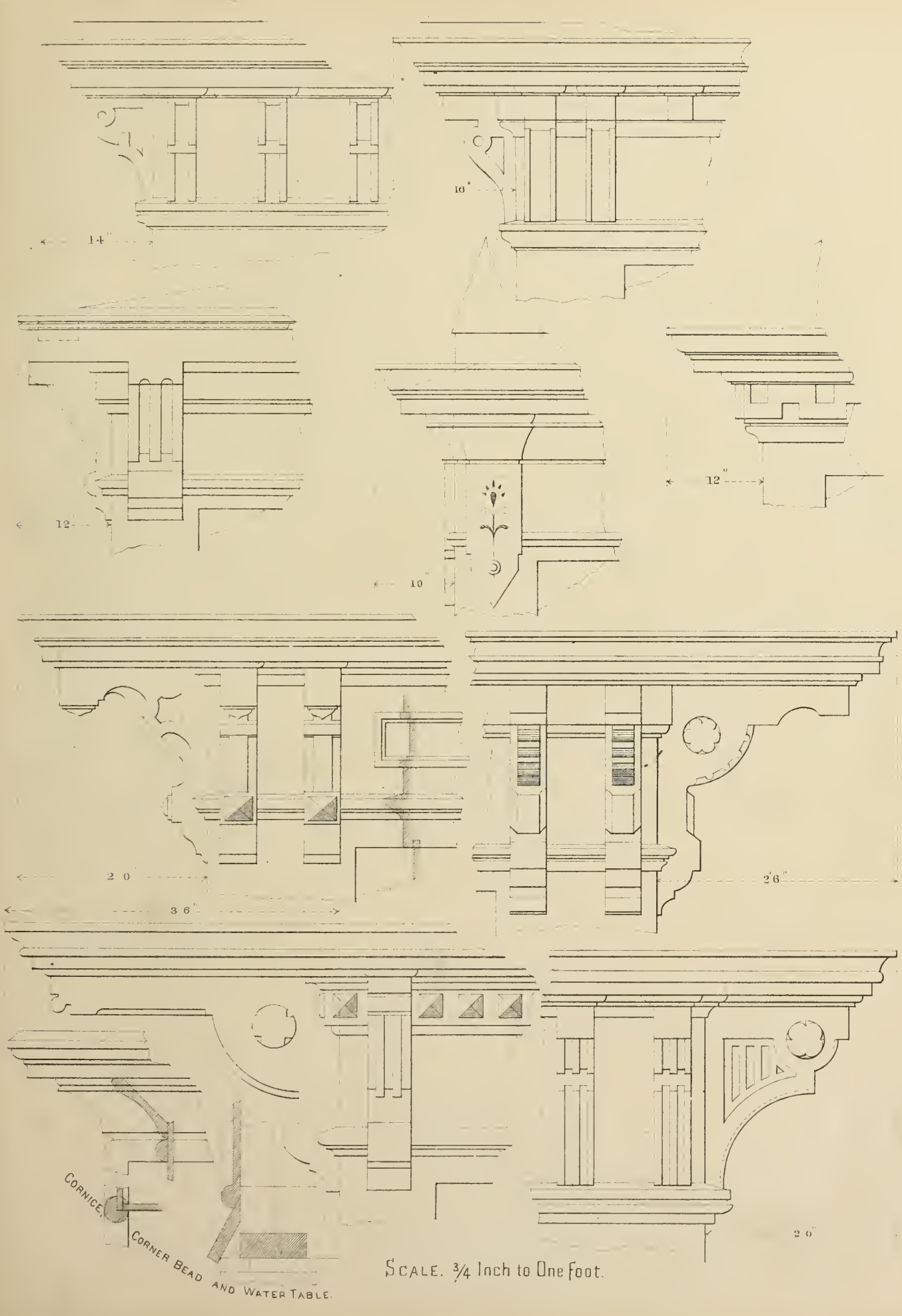
Canopies, Hoods, and Cupolas



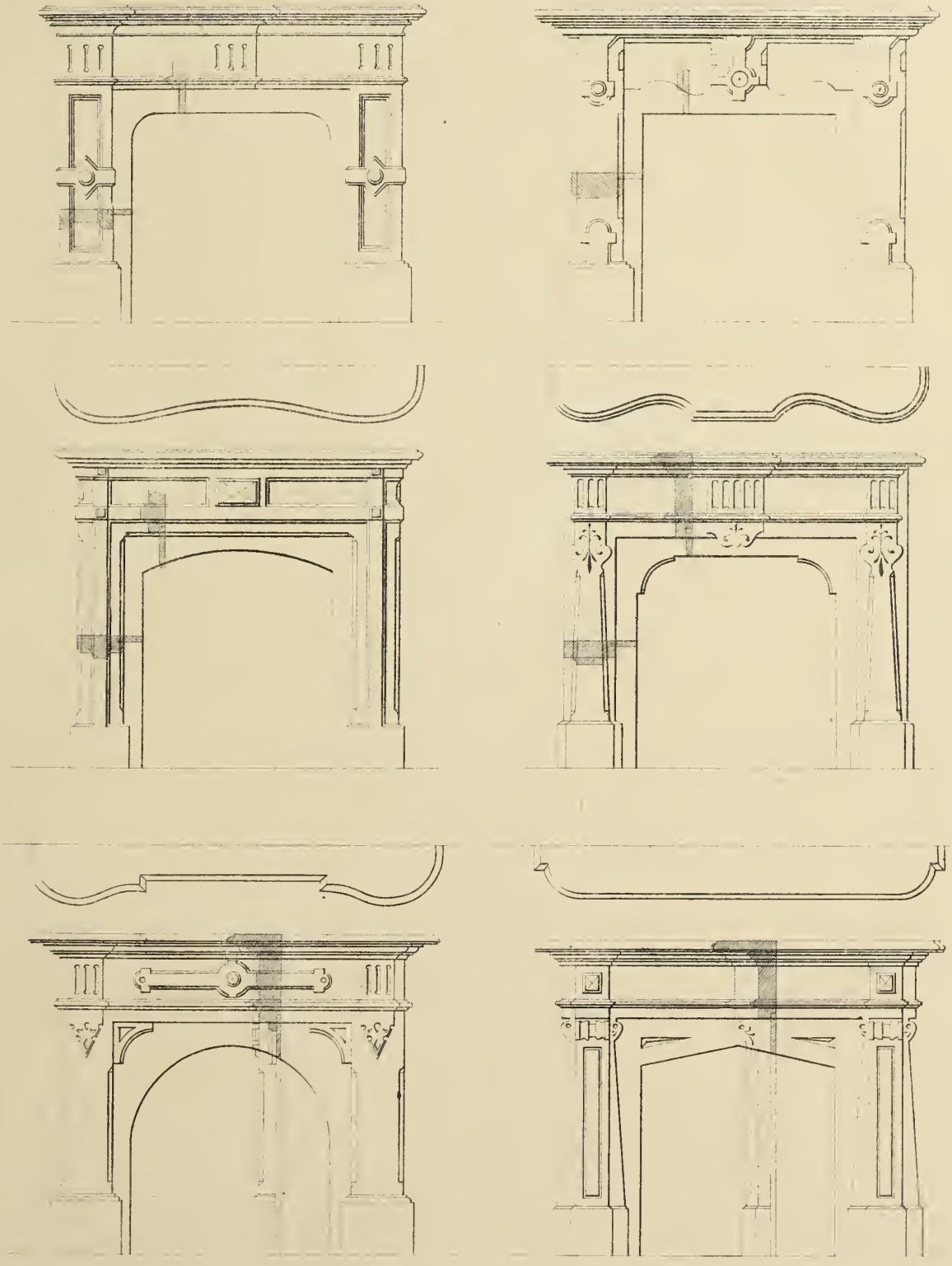
Scale of 1. 2. 3. 4 ¼ inch to the foot. Scale of 5. ⅛ inch to the foot. Scale of remaining designs ⅜ inch to the foot



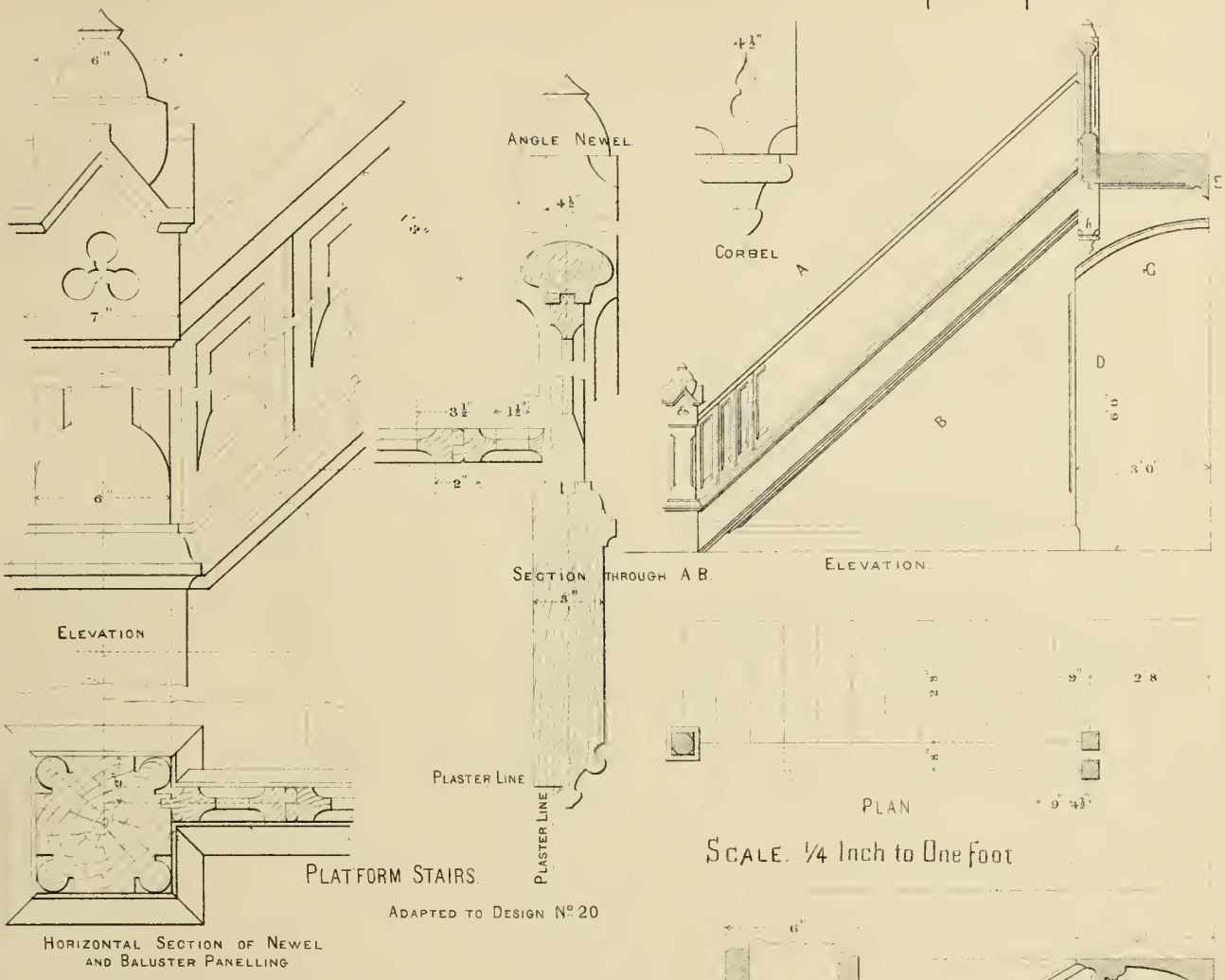
Letters on Enlarged Details refer to the same letters on Elevations
Enlarged Details 1½ Inch to the Foot
Elevation of Doors &c 3/8 Inch to the Foot.

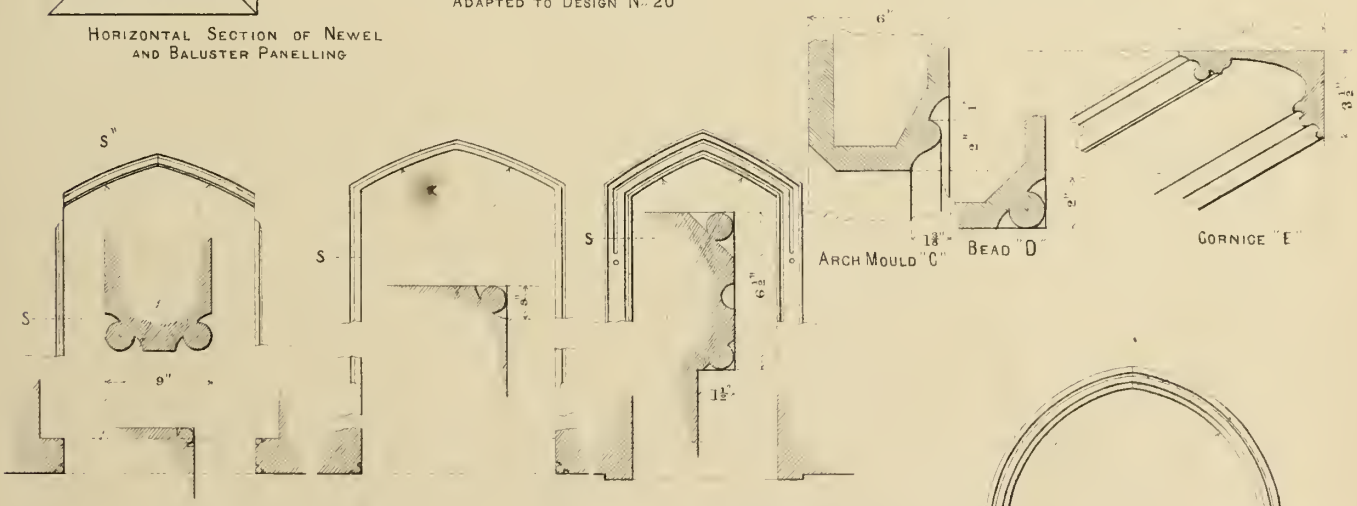


SCALE. 3/4 Inch to One Foot.



½ Inch to the Foot.


ANGLE NEWEL
CORBEL
SECTION THROUGH A B
ELEVATION
ELEVATION
PLASTER LINE
PLASTER LINE
PLAN
SCALE. 1/4 Inch to One Foot
PLATFORM STAIRS.
ADAPTED TO DESIGN Nº 20
HORIZONTAL SECTION OF NEWEL AND BALUSTER PANELLING


ARCH MOULD "C"
BEAD "D"
CORNICE "E"

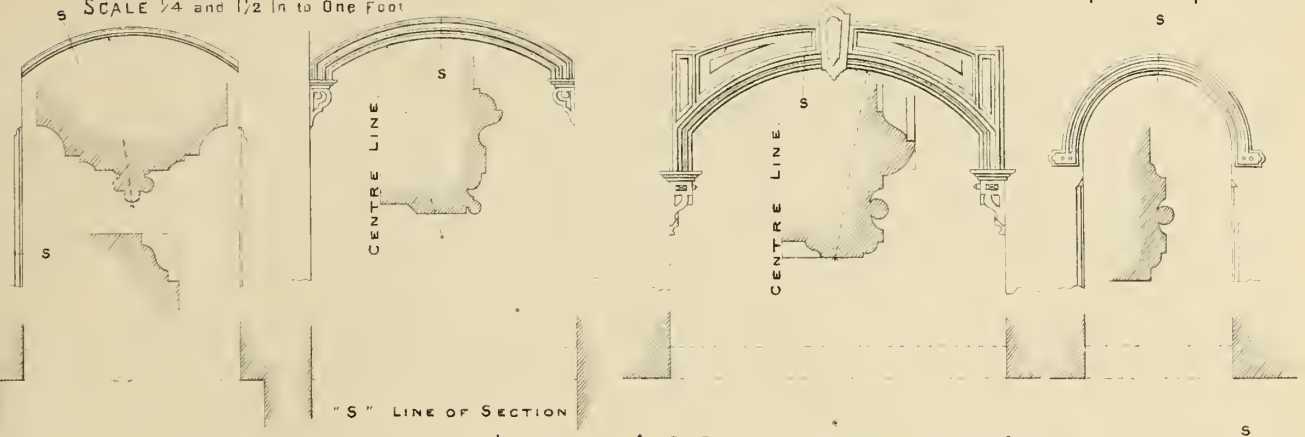
INTERIOR ARCHES. GOTHIC
"S" INDICATES LINE OF SECTION

Miscellaneous Details

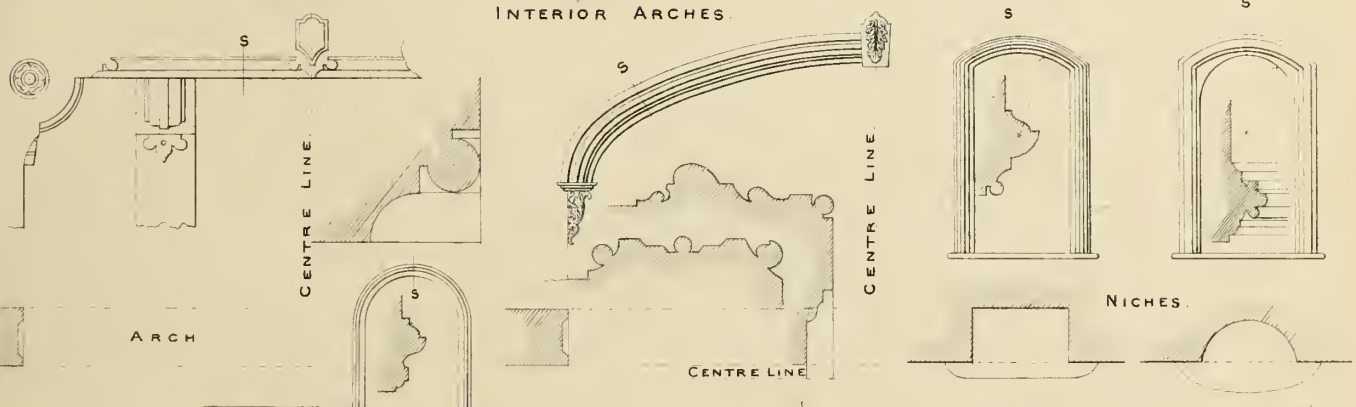
SCALE ¼ and 1½ In to One Foot

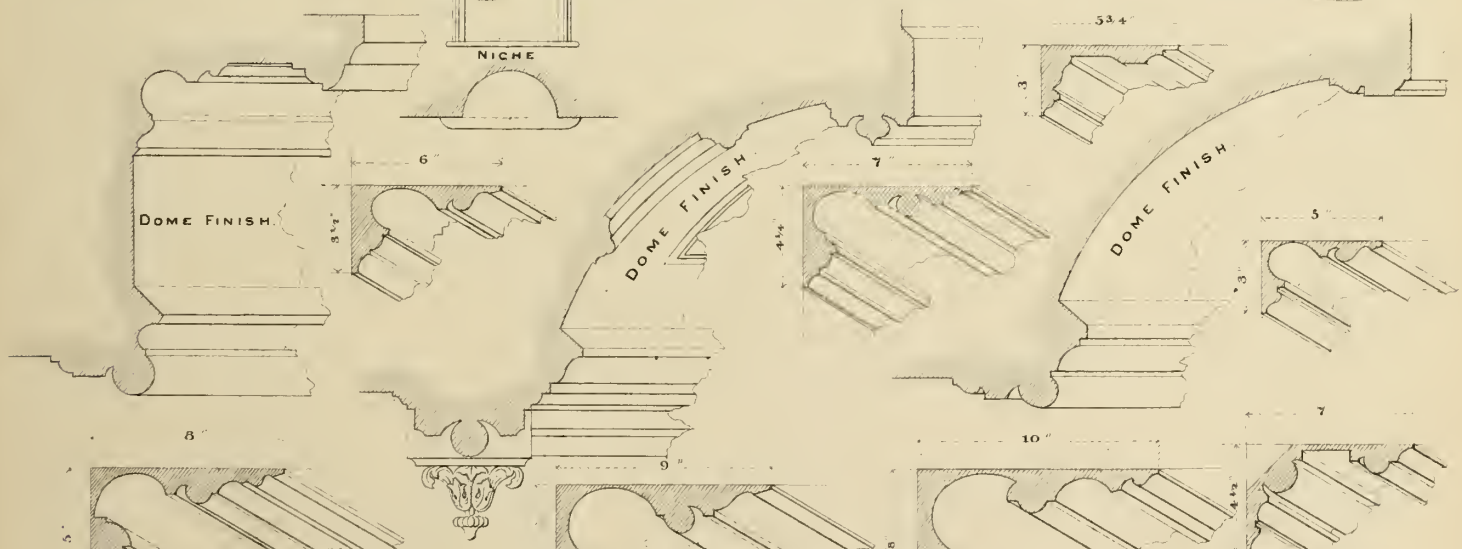
PLASTER FINISH

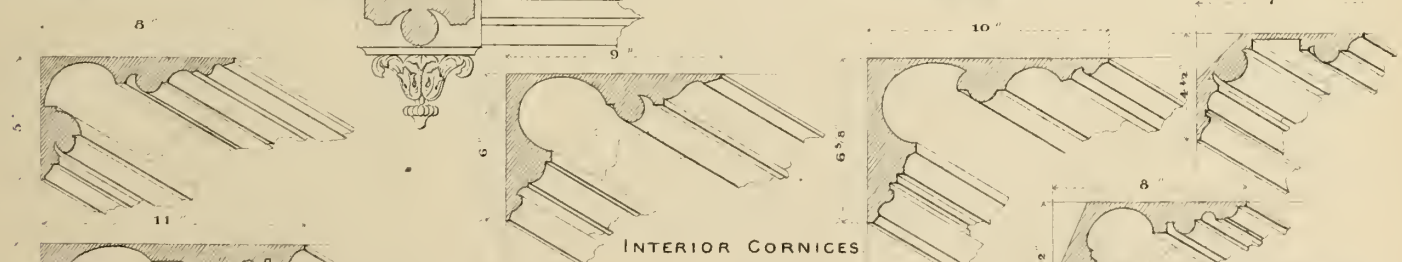
Plate No 98.



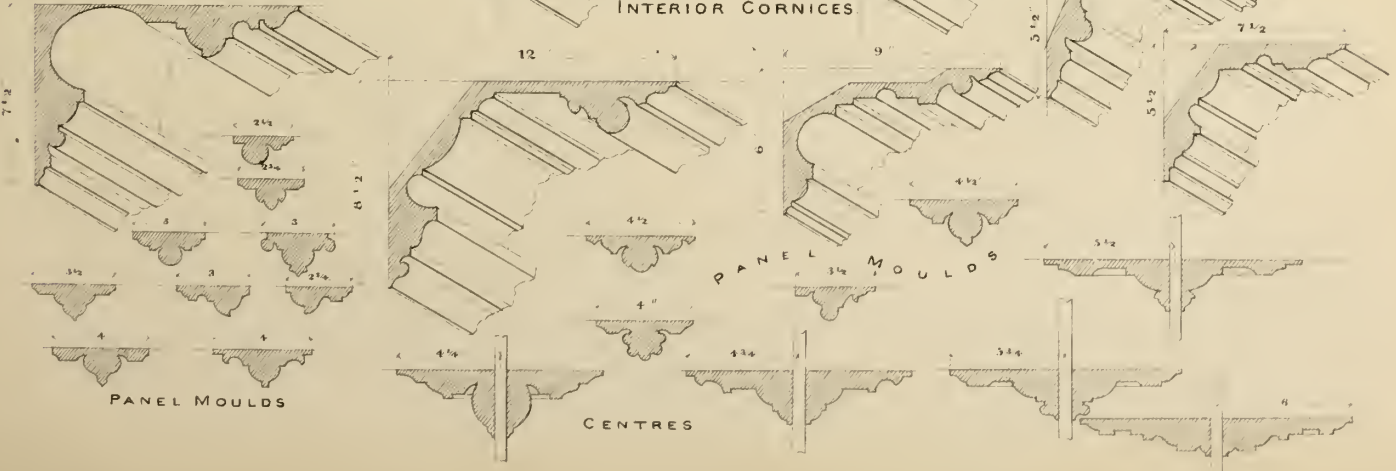
INTERIOR ARCHES





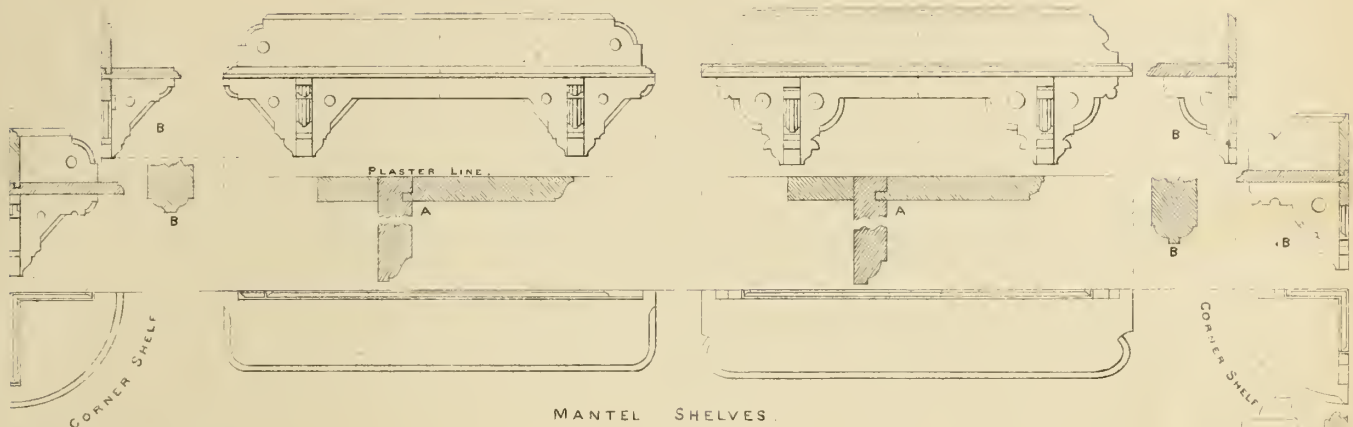


INTERIOR CORNICES

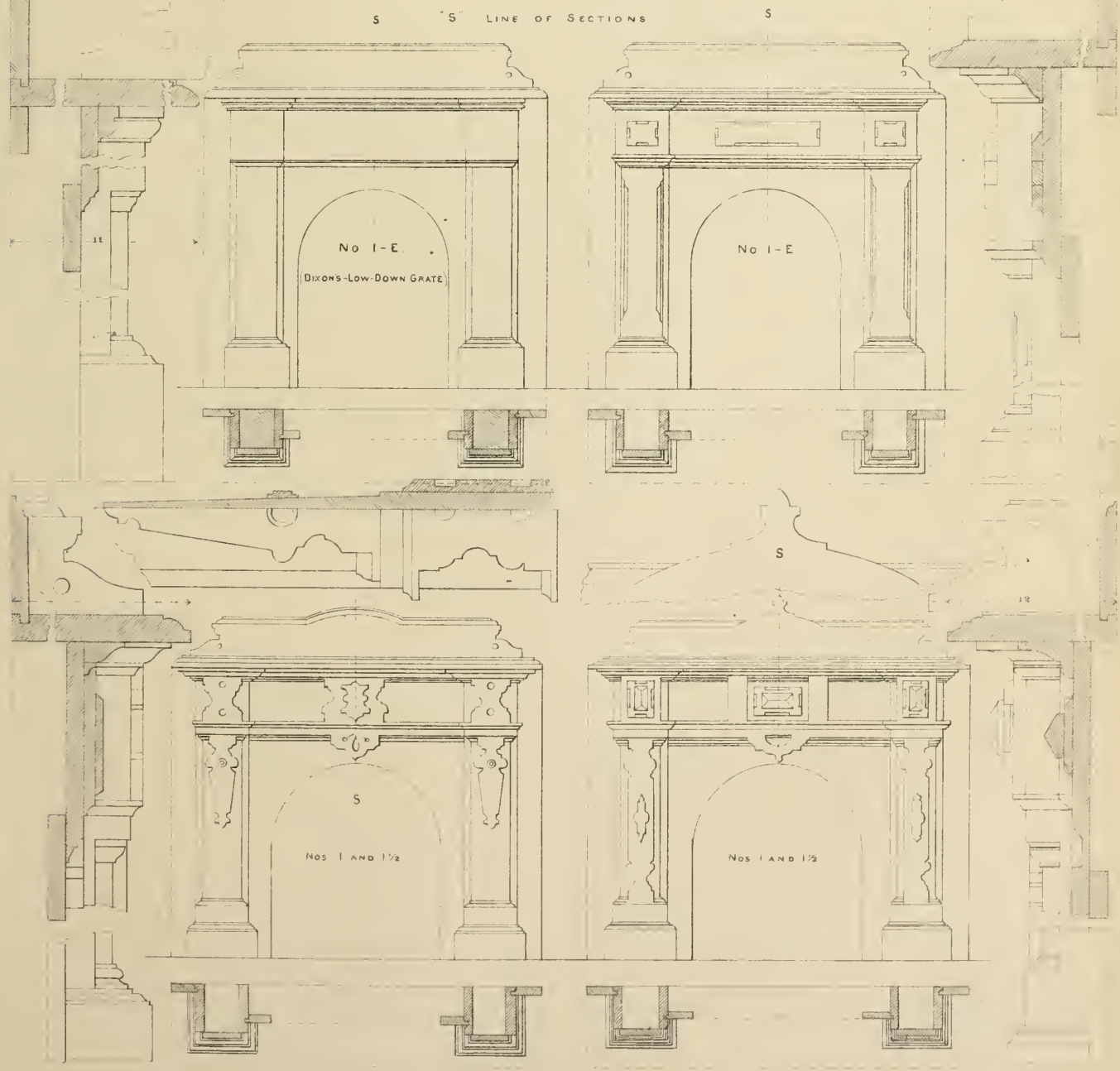


WOOD MANTELS

SCALE ½ and 1½ Ins to One Foot



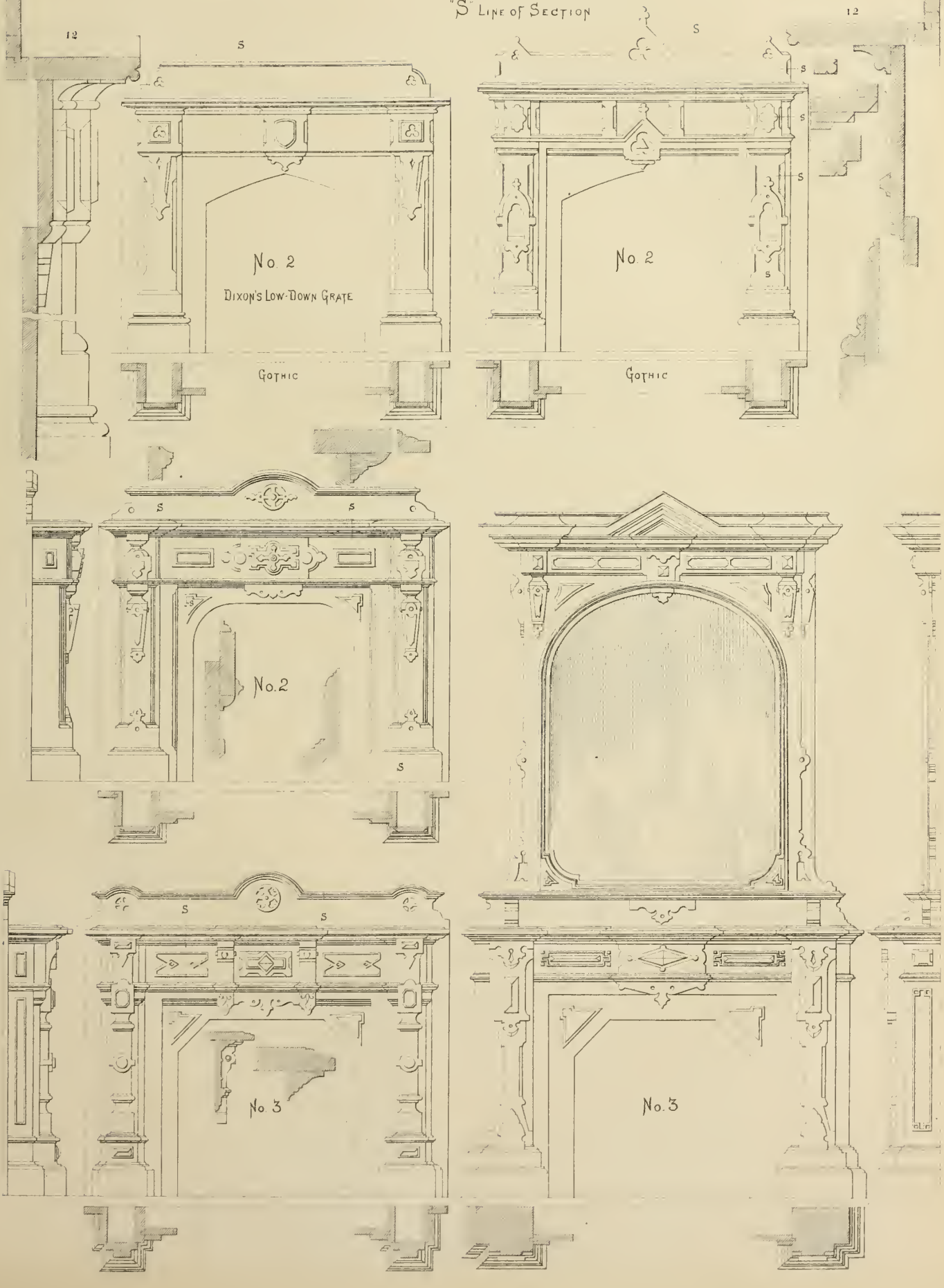
MANTEL SHELVES



SCALE ½ and 1½ Ins to One Foot

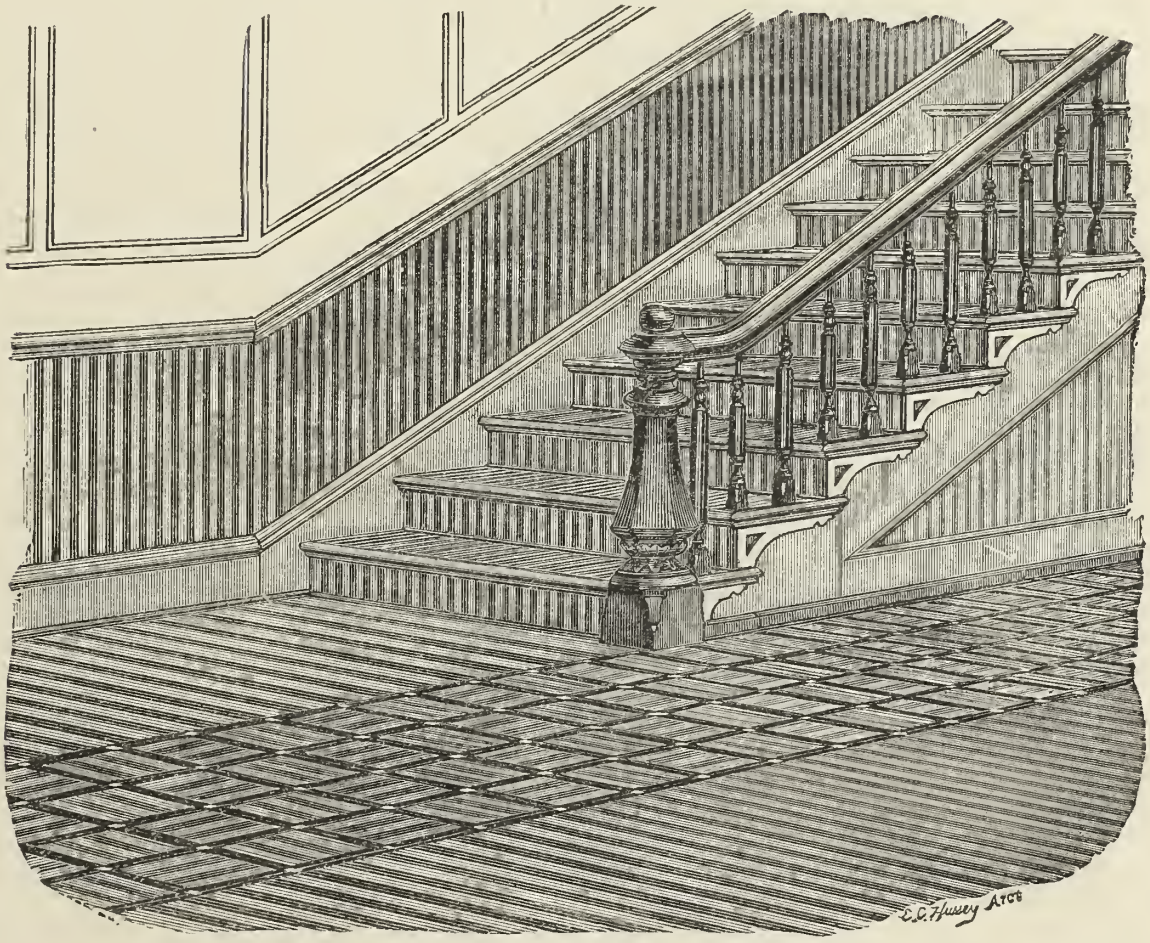
WOOD MANTELS

"S" LINE OF SECTION



Portable Wainscoting and Wood Floor Covering,

PATENTED NOVEMBER 10, 1868.



This new article of manufacture is now commanding the attention of Architects, Builders and Housekeepers, and is gradually superceding the use of tongued and grooved hard woods for wainscoting, the cost of which is less than one-half, and possesses this advantage—that there is no perceptible shrinkage. It consists simply of narrow strips of hard woods, of any kind, nearly one-fourth of an inch in thickness, firmly glued on to twilled canton flannel. These strips are all kiln-dried after they are cut up. It is unrolled like a carpet, laid on the wall, and secured by a rabbeted cap at the top and a moulding below. As a carpeting, the cost is about the same as a good oil cloth, but will last *four times* as long. Can be laid in any pattern. Dr. DIXON, one of our most eminent Surgeons, and proprietor of the "*Scalpel*," strongly commends its use, on hygienic principles.

Among those who have used it, and can fully endorse our claims to its merits, we may mention the names of GEORGE E. WOODWARD, Esq., publisher of this and other works on Architecture; GRIFFITH THOMAS, Esq., Architect of the Park Bank, Life Buildings, &c., and many others. We ***guarantee all work put up by us,*** and shall endeavor to place it in the hands of agents at remote points from here, who will carry out our instructions, so that the work may be fully equal to that under our immediate supervision.

☞ *SEND FOR CIRCULAR AND PRICE LIST.*

HUSSEY & WHITTEMORE, Manufacturers and Sole Proprietors,

245 Broadway, Agriculturist Building, New York.

JOHN Q. A. BUTLER, Stove, Range and Furnace Warehouse,

236 Water Street, between Beekman and Peck Slips.

Fig. 1.

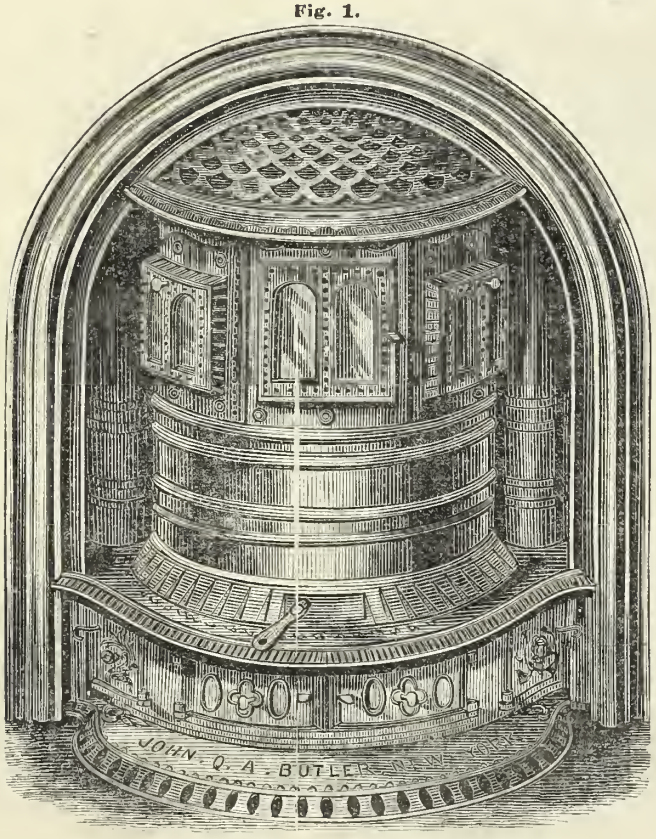


Fig. 1—BUTLER'S FIRE-PLACE HEATER.

The latest and best, containing the following advantages over others:

First.—Sitting further out in the room it will give more heat than others in the room in which it is placed.

Second.—Having greater amount of heating surface and largely increased circulation, it will give more heat up stairs.

Third.—It has the most approved dumping and shaking grate which can be operated at all times, without opening of doors, thereby securing immunity from dust and ashes.

Fourth.—The open-work top can be removed giving conveniences for boiling water, heating sad-irons and even for baking if desired, with the aid of a tin cover.

Fifth.—The whole combined forms the most complete and efficient fire-place heater now in the market.

Fig. 2—The Warren Double Elevated Oven Range.

Especial attention is invited to the Improvements Incorporated in this range.

It is **substantially made, of the best material, compact in form, beautiful in design and in all respects First-Class.**

It has an **Enlarged Boiling Top,** giving access to cooking utensils under the Oven, still retaining the flue (conveying heat to the Ovens), in **close proximity** to the fire, thereby securing Convenience and Economy.

Having but **one Damper** to control the draft and regulate the temperature of the Ovens, using the flue around the Ovens for kindling, not only **Simplifies** but secures great Economy of Fuel.

The peculiar construction of the boiling top gives a **Large Square Opening directly over the Fire for Broiling and Toasting,** which method will convince good housekeepers that this improvement is an important one, other ranges being deficient in this respect. The construction of the grate admits of the coal and ashes being removed from the fire-box without the **escape of Dust into the Room.** Being made into two parts, the expense of displacing the masonry when a new one is required is avoided.

The spacious hot closet is made entirely of cast iron, located directly over the ovens, and easy of access. The shelf projecting over the steam flues is also of cast iron, combining **Strength and Durability,** besides affording an admirable place for setting dishes, etc.

Ventilation of Ovens is one of the new and important arrangements, also the method of removing steam and effluvia from cooking is complete.

Fig. 2.

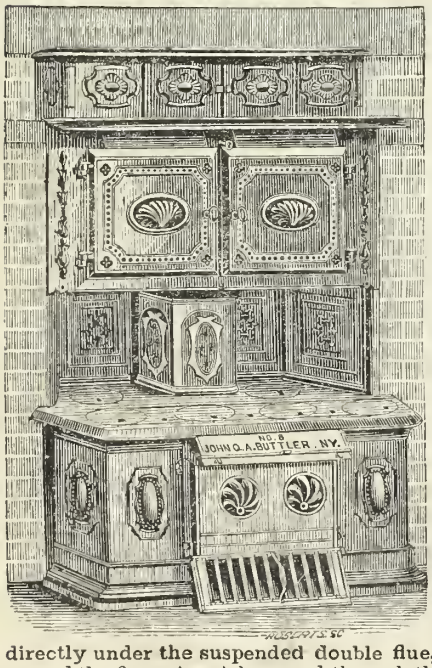
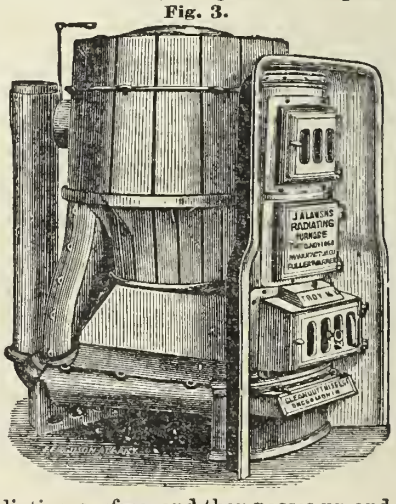


Fig. 3—THE LAWSON FURNACE.

The construction of the Lawson Furnace is such as—

First.—To give a large amount of Radiating Surface, brought in close proximity to the fire-chamber, by means of a Dome, containing a series of air-tubes passing through it from the lower to the upper section of the hot-air chamber; also a double radiating Flue suspended under the ash-pit, through which the heat, after charging the dome and air-tubes, is carried before reaching the smoke-pipe, and with this large amount of extra radiating surface, in connection with a lined Fire-Pot so located as to radiate directly into the air-chamber, it must be evident that a very great advantage is gained over other Furnaces, in point of radiating capacity.

Fig. 3.



Second.—By means of the suspended double flue under the ash-box, and the air-tubes passing through under the dome, a very strong attraction is created to produce a liberal supply of pure cold air through the air-box, and rapidly pass it up through the hot-air chamber, thereby always insuring a large supply of well-warmed but not over-heated air in the rooms.

Third.—As we bring the cold air in directly under the suspended double flue, so that it comes at once in contact with radiating surface, and then passes up and around the fire-pot and dome and through the radiating tubes, it must be evident that exposing so much radiating surface gives great economy of fuel, requiring a much less consumption of fuel to furnish a given amount of heat, than other furnaces require, having small radiating capacity, and introducing the cold air indirectly to the radiating surface, so that as regards economy this Furnace stands unrivaled.

Fourth.—**The Combustion is controlled on the air-tight principle,** which, in connection with the manner in which the Furnace is constructed, and the Flues arranged, renders the escape of Gas into the rooms impossible.

Fifth.—**The Lawson Furnace is not made to compete with cheap, poorly made articles,** but in every respect to be a first-class Furnace, no expense being spared, either in weight or finish of castings, or mechanical skill in fitting, the doors being all ground and fitted air-tight, and joints perfectly secured.

Sixth.—In point of convenience, it is all that could be desired, having a Grate which shakes and dumps with perfect ease, the doors for feeding, fire-pot and water evaporator, as well as for cleaning out ash-pit, are all of liberal proportions, and the only damper connected with the Furnace is operated from the front.

KEROSENE LIGHTS PERFECTED.

IVES' PATENT LAMPS.

The Safest, Simplest and Best!

BRONZE CHANDELIERS, for Gas or Kerosene, 2, 3, 4, 6, 8, 9 and 12 Lights.
BRONZE SIDE BRACKETS, for Kerosene or Gas, 1, 2 and 3 Lights.
PULPIT STANDARDS, with Hooded Reflectors.
VESTIBULE LANTERNS, with Double Reflectors.
HALL OR ENTRY LAMPS, with Ground or Cut Crystal Glass Globes.
REFLECTOR HANGING LAMPS, with Enameled Shades, Opal Glass.
HANGING LAMPS, with Patent Corrugated Glass Reflectors.
SPRING BRACKET LAMPS, with Shades or Globes.
ELEGANT LAMPS AND VASES COMBINED, of New and Novel Designs.
Beautiful Bronze Portable Stands and Lamps,
Common Stand and Hand Lamps, etc.,
In great variety of Style, Quality and Price.

WE ALSO HAVE A LARGE VARIETY OF FIRST-CLASS

GAS FIXTURES,

Adapted for Burning Kerosene or Gas. With our Patented Improvements all the above

CAN BE LIGHTED AS QUICKLY AS GAS,

Filled and Trimmed Safely and Neatly, without Removing the Shade, Globe or Chimney, or Unscrewing the Burner.

IVES' PATENT LAMPS,

Are sold by Dealers generally, but to introduce them where the merchants have not yet got them, we give particular attention to Retail Trade, making a specialty of furnishing

SAFE STATIONARY LIGHTS

IN PLACE OF THOSE THAT ARE MOVEABLE AND DANGEROUS

APPROPRIATE FOR EVERY PLACE WHERE GOOD ARTIFICIAL LIGHT IS REQUIRED.

Our New Catalogue is just out, with many new Illustrations and a new list of

REDUCED PRICES!

We make a Discount to CHURCHES and CLERGYMEN and invite the attention of all Committees on Lights for Churches, Public Halls or other buildings.

WE MANUFACTURE AND SELL

KEROSENE GOODS OF ALL KINDS,

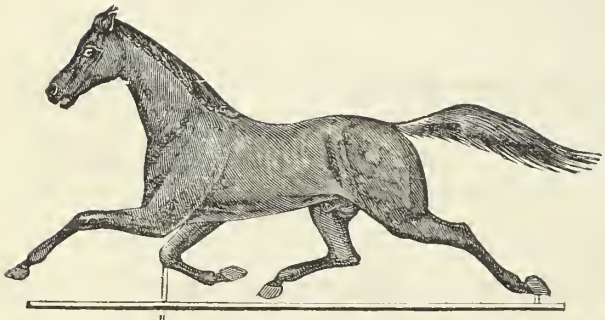
AND INVITE MERCHANTS TO EXAMINE OUR STOCK.

Pure Refined Oil, Safe for Family Use.

JULIUS IVES & CO., 49 Maiden Lane, New York.

We shall Remove, April 1, to our New Store, extending through the block from No. 37 BARCLAY STREET TO 42 PARK PLACE.

J. W. FISKE,

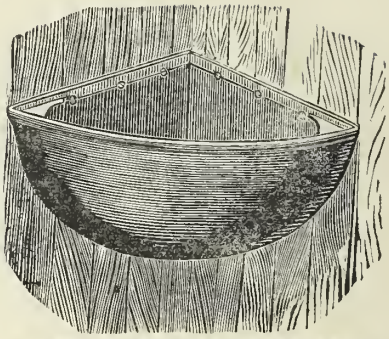


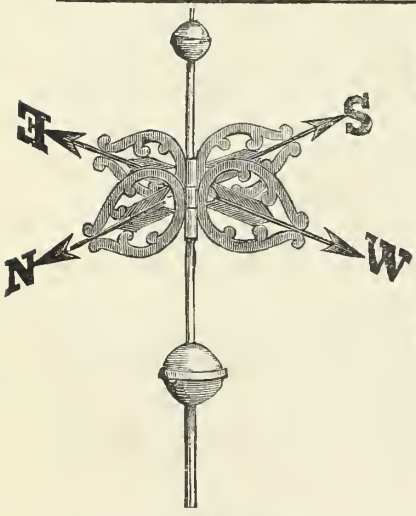
120

Nassau Street,

NEW YORK,

Manufacturer of





ORNAMENTAL IRON GOODS

COMPRISING, IN PART,

FOUNTAINS, VASES, FIGURES,

SETTEES, CHAIRS, &c., &c.

ALSO,

IRON & WIRE RAILINGS,

SUITABLE FOR

MANSARD ROOFS,

Balconies, Fences, Cemeteries, &c.

Iron and Wire Door and Window Guards made to order, of any dimensions.

IRON STABLE FIXTURES,

COMPRISING THE LARGEST AND MOST APPROVED STYLE IN THE COUNTRY.

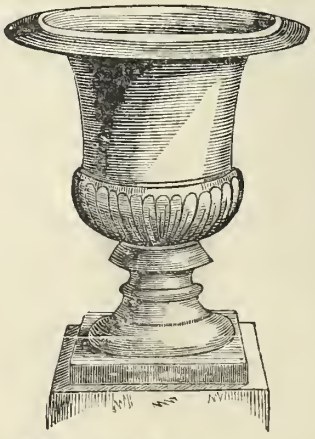
COPPER WEATHER VANES,

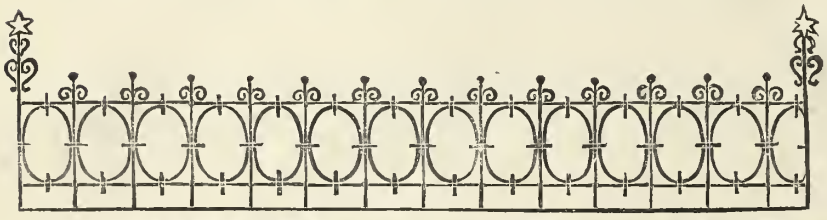
For CHURCHES, PUBLIC BUILDINGS, PRIVATE DWELLINGS, STABLES, &c., comprising over 200 varieties. Also made to order any design required.

IRON FURNITURE.

IRON BEDSTEADS

For Private use and Public Institutions.





120 Nassau Street, New York.

THE GOTHIC FURNACE,

FOR WARMING

Dwellings, Churches, Stores, Schools, Etc.,

PATENTED SEPTEMBER 18, 1860.

PREMIUM AWARDED BY THE AMERICAN INSTITUTE, 1863.

ALEX. M. LESLEY, Manufacturer,

No. 605 SIXTH AVENUE AND 1310 BROADWAY, NEW YORK,

Between Thirty-Fifth and Thirty-Sixth Streets.

BURNS EITHER COAL OR WOOD.

ADVANTAGES, OPERATION AND ARGUMENT.

This Furnace overcomes the many objections usually given to Hot-air Furnaces, viz., of red hot surfaces and burnt air. No part of the Radiating Surfaces (except the Fire-Pot), can become Red Hot; consequently, the air coming from the Furnace is of a mild and pleasant temperature, and with the Evaporator, which should always be used, leaves nothing to be desired. The imperfections of Hot-air Furnaces have compelled many persons to adopt steam and hot water instead, for warming houses, stores and churches; and while I would not say one word against such modes, except the great expense and liability of getting out of order, I will say that with the Gothic Furnace *the whole difficulty is overcome.* Houses can be warmed cheaply and with a pure atmosphere. Another feature about the Gothic Furnace, which is much approved, is the perfect simplicity of construction, which enables the most stupid servant to manage it. There are no dampers, as in most furnaces, to confuse servants. The fire is obliged to go up in one direction at all times, passing over the corrugated dome and serpentine side-pipes. There are no direct drafts, (which, in many cases in other furnaces, are left open too long, allowing the heat to pass into the chimney). By opening or closing the slides in the doors, and the two round doors in the side-pipes, perfect control of the fire is obtained, and a continuous fire may be kept up for six months, if desired, *consuming not over six tons of coal.*

Probably more furnaces have been condemned for leakage of gas than for any other reason. This is a very serious objection, and to one which many are liable, on account of the great number of joints which are bolted together, so that when a fire is started in it, the different parts of the furnace expand and contract unequally, snapping the bolts and allowing the gas to pass into the air-chamber. In the Gothic Furnace all the joints are *sand joints*, and there is plenty of room allowed for expansion and contraction.

Every part of the Furnace can be reached and cleaned in ten minutes with the scraper made for that purpose. Persons living at a distance or near by can clean their own furnaces without expense or trouble. It should be kept clean and free from ashes or soot; and can be thoroughly cleaned while the fire is in operation. Never allow the ashes to fill up the ash-pit; by so doing, the grate will burn out quickly. The large radiating surfaces—most of which are corrugated—render the furnace the best in use; abundant testimony can be given in that respect.

EMPIRE STATE
GAS MACHINE,

(STEVENS' PATENTS,)

For Supplying Dwellings, Stores, Factories, Churches, and other Public Buildings.

THE ONLY GAS MACHINE that is at once *Reliable, Durable and SAFE.* Operating by Nature's own laws, *IT CANNOT FAIL.*

Constructed in the most thorough manner of *Brass and Iron, it must LAST A LIFE-TIME!* Requiring no Lighted Burner or other Flame in the Gas-House it is **SAFE!**

TO ALL PERSONS

Living out of reach of Gas-Mains, we would say:

MAKE NO ARRANGEMENT FOR

LIGHTING YOUR HOUSE, STORE OR FACTORY

Without First Inquiring into the Merits of this Machine.

We can furnish you with the names and ADDRESSES, IN FULL, OF HUNDREDS of parties who, after using the EMPIRE STATE GAS MACHINE constantly for upwards of THREE YEARS, speak in the highest terms of it, and recommend it to all desiring a

GOOD, RELIABLE, CHEAP,

AND

ENTIRELY SAFE GAS-LIGHT.

For PRICE LIST, and full particulars as to Cost of Light, etc., address

NASH & CATE, General Agents,

No. 29 CORTLANDT STREET, NEW YORK,

Dealers in CHANDELIERS AND GAS FIXTURES of every Description.

ALSO IN ARGAND BURNERS FOR AIR-GAS.

BUILDINGS FITTED WITH GAS PIPES IN THE MOST THOROUGH MANNER.

THE MANUFACTURER AND BUILDER,

A Practical Journal of Industrial Progress.

PUBLISHED MONTHLY.

Subscription only $1.50 per Year.

CLUBS OF MORE THAN TWENTY, $1.00 PER YEAR.

32 Large Quarto Pages for 15 cts., 384 Large Quarto Pages for $1.50,

FILLED WITH VALUABLE READING MATTER,

SPLENDIDLY ILLUSTRATED

WITH

Engravings of Everything New Relative to Manufacturing and Building.

THIS PAPER GIVES THE MANUFACTURING AND BUILDING INTERESTS

FULL, ABLE AND TRUSTWORTHY REPRESENTATION.

NEW AND ELEGANT DESIGNS

FOR

COUNTRY HOMES,

BY

L. B. VALK, Architect,

IN EVERY NUMBER.

"THE MANUFACTURER AND BUILDER" is a PRACTICAL journal, appealing directly to the masses, either engaged or interested in the subjects of which it treats. While it is built up upon a truly scientific basis, the superstructure itself is eminently popular, coming within the easy grasp of every intelligent mind. It presents a large proportion of original matter, prepared by the ablest writers of the day, in which important industrial questions are carefully considered.

TERMS.—Subscription, $1.50 per year; Single Copies, 15 cents; 4 Copies for 1 year, $5.00, 10 Copies, $12.00; 20 and upward, $1.00 each.

ADVERTISING.—75 cents per line on inside page, and $1.00 on the back page.

WESTERN & CO., 37 Park Row.

HENRY CROMWELL,

No. 28 Barclay Street, New York,

WOULD INVITE INSPECTION OF HIS ASSORTMENT OF

BUILDERS' HARDWARE,

EMBRACING EVERY VARIETY OF

Door Locks, Hinges, Sash Cord Pulleys, Sash Weights, Glue and Sand Paper.

ALSO, BEST QUALITY

CUT NAILS.

Estimates made and carefully put up for Furnishing a House Complete.

ALSO, A LARGE ASSORTMENT OF

FARMING AND MECHANICS' TOOLS.

SIGN OF THE GILT LOCK,

No. 28 Barclay Street, New York.

JOHN J. BUDD,

MANUFACTURER OF

Whiting, Putty, Paris White,

PAINTS, DRY, IN OIL AND WATER.

DOWN TOWN OFFICE, 95 MAIDEN LANE, (UP STAIRS.)

FACTORY OFFICE, 149 BANK STREET.

Factory, 39, 41, 43, and 45 Bethune Street, New York.

GEO. E. WOODWARD,

ARCHITECT,

No. 191 BROADWAY, NEW YORK.

Designs, Plans, Specifications and Details,

PREPARED FOR BUILDINGS OF EVERY CLASS.

E. STEIGER,

22 and 24 FRANKFORT STREET,

NEW YORK,

keeps on hand a large and well selected stock of

German Publications

in the departments of

Architecture,

Carpentry and

Building,

Mechanics and

Engineering,

&c. &c.

Foreign Books & Periodicals

promptly supplied.

REGULAR IMPORTATION

from GERMANY

Every Week,

from ENGLAND and FRANCE

Twice a Month, or oftener.

All foreign Publications,

In Whatever Language and Wherever Issued,

procured as speedily as possible.

Inquiries promptly attended to, and Catalogues sent gratis.

The Workshop.

A MONTHLY JOURNAL

Devoted to Progress of the Useful Arts.

EDITED BY

Prof. W. BAUMER, J. SCHNORR and Others.

This Periodical is the American Edition of a German Monthly, 'DIE GEWERBEHALLE', which has a very large circulation, and is now being published in German, English, French and Italian.

'THE WORKSHOP' is devoted to Progress in all departments of the Useful Arts. It gives Descriptions and Designs, with details in large size, for most classes of Trades, for Architects, Builders, Cabinet and Furniture Makers, Carpenters and Joiners, Carriage Makers, Carvers, Sculptors, Stone Cutters, Stuccoers and Plasterers, Decorators, Designers, Engravers and Lithographers, Founders, Gilders, Gold, Silver and Metal Workers, Jewellers, Painters, Upholsterers, Weavers, for Manufacturers of Bronzes, Britannia Ware, Gas Fixtures, Clocks and Watches, China, Crystal, Earthenware and Glass, Fancy Goods, Embroideries, Trimmings, Ribbons, Mouldings, as well as for Artists generally, and all Others having a chance to show taste in their work.

The Illustrations of 'The Workshop' comprise also Ornaments in various styles.

It contains likewise Descriptions and Illustrations of approved New Machinery, and of important New Inventions bearing upon the Useful Arts, besides Essays on Style and Art in the Trades, on Industrial Drawing, on Raw Materials used in the Trades, various Useful Notes and Memoranda on Technology, &c.

Thus 'The Workshop' is highly valuable; one single available design or pattern may be worth to any one far more than a full year's subscription.

Price $5.40 a year; single Numbers, if to be had, 50 cts.

Back-Volumes of 'THE WORKSHOP'.

In reply to the increasing number of orders for these, subscribers to 'THE WORKSHOP' are hereby reminded that publishing this Journal, *i. e.* bringing out an American edition of 'DIE GEWERBEHALLE' was only commenced in 1868. The former volumes of 'DIE GEWERBEHALLE' may, therefore, be considered Back-Volumes of 'THE WORKSHOP', the designs on account of which they are wanted, seldom, if ever, requiring an explanation, the letter-press in German does not prevent their use.

Moreover I have prepared a thorough and complete Index, in English, of all the illustrations contained in the 5 volumes of 'DIE GEWERBEHALLE'. These volumes are constantly on hand, and supplied at the following prices:

1863 (first year)	$4.50
1864 (second year)	4.50
1865 (third year)	4.50
1866 (fourth year)	4.50
1867 (fifth year)	5.40

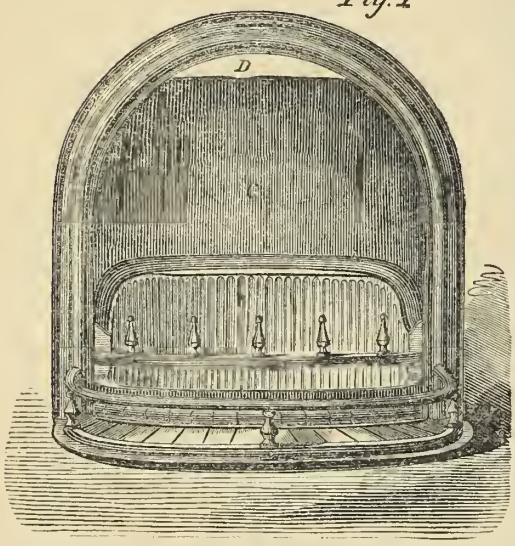
E. STEIGER,

22 & 24 Frankfort Street, N. Y.

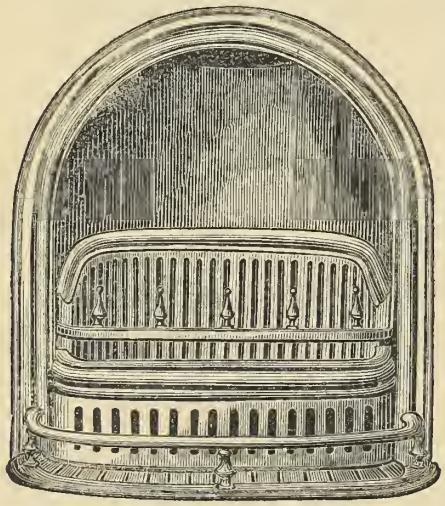
GEO. E. WOODWARD, Architect, 191 Broadway, New York,

New York Agent for the Sale of Dixon's Celebrated Low-Down & Raised Fire Grates, at Manuf'rs Prices.

Fig. 1



DIXON'S LOW-DOWN GRATE.

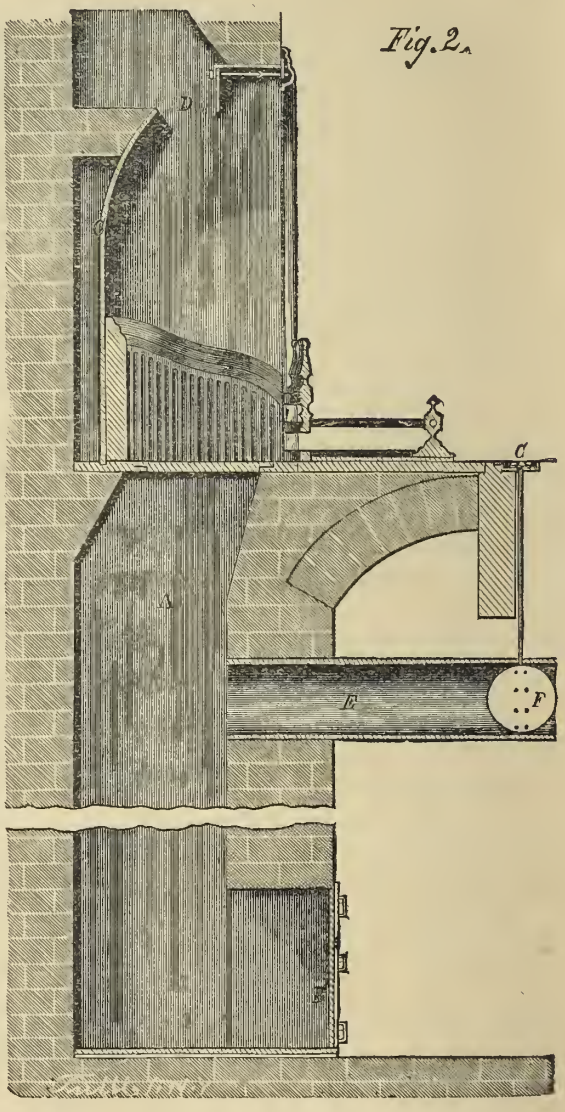


ELEVATED FIRE GRATE,
For upper rooms, where ash-pits cannot be used.

The engravings present two views of a grate which has been in use for many years in Philadelphia, and of which a number are now used in this city. Its main peculiarities are in its form, giving out a much larger proportion of the heat of combustion than others, in the fact that it does not exhaust the room of its oxygen, and that the fire is built on a level with the floor, thus warming that portion of the apartment which is always the coolest. Those who have these grates in use speak in the most unqualified terms of praise as to their action and benefits.

The fire-grate is on a level with the floor, forming a portion of the hearth. This is merely a grate, the ashes falling through the interstices into an ash-pit, A, Fig. 2, of brick, capacious enough to hold the residuum of a season's burning, and which is finally removed through the door, B. The back, C, of the fire-place, instead of being rectangular, as is ordinarily the case, is concave, so that the rays of heat are diverged radially to every part of the room to be heated. The heat rays are thrown downward as much as they are in horizontal *radii*, as the back is of a niche form, as seen in Fig. 2, curving over to the front. This back plate is usually high, giving a great distance between the fire and the point of escape for the smoke at the throat D, of the chimney. The ash-pit for the first floor can be built of such an extent, reaching to the cellar, as to receive the products of a winter's combustion. On higher floors a more elevated fire-box is used where capacious ash-pits are not convenient.

Fig. 2.



Section showing manner of setting the Grate.

The air for the purposes of combustion is not drawn from the room where the fire is situated, but comes either from the cellar, or from outside the house through the Flue, E, the admission of air being regulated by means of a damper, F, governed by a convenient handle, G, seated in the floor. By this simple arrangement the necessity of a portable blower, which prevents for the time of its use any appreciable heat from coming into the room, is obviated, while the deterioration of the air in the room by the consumption of its oxygen is prevented, thus preserving a good quality for breathing purposes, and also securing a perfect circulation at all times. The throat of the chimney for the escape of gases is near the front of the fire-place, so that the products of combustion, traversing the curved back, must yield a large percentage of their heat before escaping

Address GEO. E. WOODWARD, Architect, 191 Broadway, N. Y., New York Agent for the Sale of Dixon's Low-Down Grates, at Manufacturers' Prices.

☞ SEE PRICE AND SIZE LIST ON ANOTHER PAGE. ☜

FIRE ON THE HEARTH.

GEO. E. WOODWARD, Architect, 191 Broadway, New York,

New York Agent for the Sale of Dixon's Celebrated Low-Down and Raised Fire-Grates, at Manuf'rs Prices.

THE MOST CLEANLY AND ELEGANT OPEN FIRE FOR PARLOR, LIBRARY, OR SITTING-ROOM.

The Low-Down Grate burns coal or wood flat on the hearth. A flue or ash-pit is constructed to receive the ashes, and a cold-air flue is carried under the fire, thus preventing drafts from doors and windows, and supplying a pure atmosphere. The niche is of cast-iron, lined with fire-brick, and the radiation of heat is far more than any other style of grate, and warms the feet delightfully. This Grate is well known in and about the city of Philadelphia, where it has been in use for many years, and is being extensively used about New York. Unqualified praise has always been expressed in relation to them. They are, without exception, the BEST GRATE MADE.

SIZE AND PRICE LIST—with all Fixtures. Mantels and Hearths extra, at lowest rates.

No. 1 E.	*Nos. 1 and 1½.*	*No. 2.*	*No. 3.*
SIZE OF NICHE: Or Opening in Marble Mantel: HEIGHT, 2 feet 6 inches. WIDTH, 1 foot 11 inches.	**SIZE OF NICHE:** HEIGHT, 2 feet 5¼ inches. WIDTH, 2 feet 2¼ inches.	**SIZE OF NICHE:** HEIGHT, 2 feet 8 inches. WIDTH, 2 feet 5 inches.	**SIZE OF NICHE:** HEIGHT, 2 feet 8 inches. WIDTH, 2 feet 8 inches.
BLACK JAPANNED, ... $35	BLACK JAPANNED,.... $40	BLACK JAPANNED,..... $50	DEAD GROUND, ... $55
DEAD GROUND,.. 40	DEAD GROUND,..... 45	DEAD GROUND,..... 50	POLISHED,..... 60
POLISHED, ... 45	POLISHED,..... 50	POLISHED,..... 55	BRASS,... 100
	BRASS, ... 80	BRASS,..... 90	GERMAN SILVER,..... 175
	GERMAN SILVER,.... 150	GERMAN SILVER,..... 160	

Nos. 1 and 1½ RAISED FIRE. Niche & Front are 3 inches higher than sizes given here.

The Sizes of above Fronts are for Openings with Circular Tops. Fronts to suit Openings of different shape or size can be furnished if required.

"We had one of these admirable contrivances put in our house in 1859, and every additional year only increases our appreciation of the luxury.

* * "It is believed there is scarcely a single physician in Philadelphia, who owns the house he lives in, who is not supplied with one or more of these delightful luxuries."
—*Dr. Hall, Editor of Hall's Journal of Health.*

"Chiefest of luxuries is an open fire-place and a wood fire."

"An open wood fire is eminently healthy; and good health is cheap at any price."

"The days of wood fire are not utterly gone. As long as I live they never will be gone."
—*Ik Marvel.*

"In one room, at least, in every country house there should be the exhilarating air and influence of an open fire."

"I have seen respectability and amiability grouped over the air-tight stove. I have seen virtue and intelligence hovering over the register; but I have never seen true happiness in the family circle where the faces were not illuminated by the blaze of an open fire-place."
—*Dr. Oliver Wendell Holmes.*

WORKING DRAWINGS SENT WITH ALL GRATES SO THAT ANY MASON CAN SET THEM.

Address GEO. E. WOODWARD, Architect, 191 Broadway, N. Y., New York Agent for the Sale of Dixon's Low-Down Grates at Manufacturers' Prices.

JUST PUBLISHED.

RIDDELL'S

CARPENTER AND JOINER

AND

ELEMENTS OF HAND-RAILING.

Complete in One Large Quarto Volume, 10x14 inches. Price Seven Dollars, post-paid, with 32 plates showing the cuts in Carpentry and the Construction of Staircases. Cuts and Mitres for Plumb, Raking and Circular Mouldings

CURVED ROOFS

HIP ROOFS,

FRENCH ROOFS,

with Straight and Curved Rafters, to find lengths and cuts, and practically execute the construction.

New and Practical

METHODS IN STAIR-BUILDING.

With complete Miscellaneous Instruction and more really useful information than has ever before been collected on the same subject.

GEO. E. WOODWARD,
Publisher of Architectural Books,
191 BROADWAY, NEW YORK.

CUMMINGS & MILLER'S

MODERN AMERICAN ARCHITECTURE.

Containing Designs in Elevation and Plans for Villas, Farm-Houses, School-Houses, Cottages, City Residences, Churches, etc.; also, Trussed Roofs, Interior Store Finish, and many Exterior Details, all drawn to a working scale. 1 large quarto volume. Price $10, post-paid.

THE PRACTICAL STAIR BUILDER.

A Complete Treatise on the Art of Building Stairs and Hand-Rails, designed for Carpenters, Builders, and Stair Builders. Illustrated with 30 Original Plates. By C. Edward Loth, Professional Stair Builder. 1 large quarto volume. Price $10, post-paid.

CUMMINGS & MILLER'S

ARCHITECTURAL DETAILS.

714 Illustrations, showing the manner of Constructing Cornices, Doorways, Porches, Windows, Verandahs, Railings, Stairs, French Roofs, Observatories, Piazzas, Bay Windows, Cut Stone Work, various styles of modern finish, and Street Fronts of Houses, Stores and Banks. All working drawings to scale. 1 large quarto volume. Post-paid, $10.

Address, **GEO. E. WOODWARD,**
Publisher of Architectural Books,
191 BROADWAY, NEW YORK.

GEO. E. WOODWARD,

ARCHITECT,

191 BROADWAY, NEW YORK.

Agent for the sale of

STEWART'S

Decorated Slate and Marble MANTELS,

representing the choicest Foreign Marbles at

$20, $30, $35, $45, $50, $55, $65, $75, $85, $100 to $350 each,

RICH AND ELEGANT DESIGNS.

Orders for Mantels will receive prompt attention and suitable Designs selected.

Address,

GEO. E. WOODWARD, Architect,
191 Broadway, N. Y.

WHEELER'S

RURAL HOMES.

Houses suited to American Country Life. Illustrated with Original Plans and Designs, and full Directions for Designing, Building, Heating and Furnishing, and Form of Contract and Specification. Post 8vo, beveled boards, 300 pages. Post-paid, $2.00.

WHEELER'S

HOMES FOR THE PEOPLE.

For the Suburb and Country. The Villa, the Mansion, and the Cottage. With Examples showing how to Alter and Remodel Old Buildings. 100 Original Designs, and full descriptions and constructive and miscellaneous details. Post 8vo, beveled boards, 440 pages. Post-paid, $3.00.

JACQUES'

MANUAL OF THE HOUSE.

RURAL ARCHITECTURE; or, How to Build Dwellings, Barns, Stables and Out-Buildings of all kinds. With a Chapter on Churches and School-Houses. 126 Designs and Plans. 12mo, 176 pages Post-paid, $1.50.

GEO. E. WOODWARD,
PUBLISHER OF ARCHITECTURAL BOOKS,
191 BROADWAY, NEW YORK.

An American Edition in English of the Celebrated German Monthly

THE WORKSHOP,

A Monthly Journal, devoted to Progress of the Useful Arts.

SPLENDIDLY ILLUSTRATED.

Price 5.40 per annum. Single Numbers 50cts.

"The Workshop" is devoted to Progress in all departments of the Useful Arts. It gives Descriptions and Designs, with details in large size, for Architects, Builders, Cabinet and Furniture Makers, Carpenters and Joiners, Carriage Makers, Carvers, Sculptors, Stone Cutters, Stuccoers and Plasterers, Decorators, Designers, Painters, etc.

SUBURBAN HOMES FOR NEW YORKERS,

WHERE TO FIND AND HOW TO BUILD THEM.

Elegantly illustrated with new designs and plans.

By Geo. E. Woodward, Architect.

Price Twenty-five cents, post paid.

GEO. E. WOODWARD,
Publisher Architectural Books
191 Broadway, New York.

Rural Church Architecture,

EIGHTEEN DESIGNS FOR CHURCHES

Of different Styles and Cost, and Twenty-eight Elevations, splendidly Chromo-Lithographed in colors, and Thirty-two Plans and Sections on heavy folio plate paper, 13x17 inches, by the following prominent Architects—Upjohn, Renwick, Wheeler, Wells, Austin, Stone, Cleveland, Backus, Reeve, etc.

This work contains the Premium Designs of the leading Architects in this country as submitted to the Albany Convention, and were selected to meet the wants of all sections, giving, as it does, low-priced buildings, and increasing gradually in size and cost to those adapted to larger and more able congregations.

To Architects, Builders and Building Committees,

it is an invaluable aid, giving suggestions of style, arrangement and construction, to be found nowhere else; any alterations to suit the wants of different denominations can easily be made. This is the only Work on Church Architecture now published. The edition is limited, and being Chromo-Lithographed will not be reprinted.

One Large Folio Volume, post-paid, Twelve Dollars.

Published by GEO. E. WOODWARD, Architect, 191 Broadway, New York.

CATALOGUE

OF

ARCHITECTURAL BOOKS

PUBLISHED AND FOR SALE BY

GEO. E. WOODWARD,

ARCHITECT,

191 BROADWAY, NEW YORK.

All Books on this Catalogue are entirely distinct from each other. No Designs or Plans are used twice.

BOOKS BY MAIL.

Order your Books by the U. S. Mail. It is the safest and promptest mode of procuring them.

All Books pre-paid by mail on receipt of the price annexed, which is the lowest retail price.

Books ordered are selected with great care, the best bound copies, the latest editions, and are securely packed so as to carry safely any distance.

Any Book published on any subject will be procured and forwarded on receipt of retail price.

REMITTANCES AND INSTRUCTIONS.

All sums less than Ten Dollars enclose in a letter, and mail in the usual manner, being careful to seal the letter.

To remit sums of Ten Dollars and upwards, the best plans are:

1. To buy a Bank Draft on New York.

2. To buy a Postal Order on New York, and enclose it in same letter with the order for books.

3. To Register your letter at your own Post-office.

See that the Money sent is genuine, and if necessary mark it so you can identify it if sent back: do not send ragged or defaced bills.

Write all Letters plainly, give the name of your P. O., County and State, *write your own Name* at the bottom of your Letters.

Books Ordered by Express to be Collected on Delivery.

Do not order less than $10. worth to be sent C. O. D. Express Companies charge for the delivery of Goods, and for returning the money and this must be paid by the party who orders the books.

Remit Five Dollars with every C. O. D. order and the balance with Express charges both ways will be collected on delivery of Goods.

The best, safest and cheapest way to buy books, is to send the money with the order, and the books will be securely packed promptly mailed and prepaid through to any address

Books by the overland mail require letter postage, remit therefore one-half more money than the price of the book.

PUBLICATIONS OF

GEO. E. WOODWARD, ARCHITECT,

No. 191 Broadway, New York.

Woodward's Cottages and Farm Houses.
RURAL ART, No. 1. By Geo. E. Woodward, Architect and Civil Engineer. Original Designs and Plans of low-priced Cottages, Farm Houses and Out-Buildings, and numerous plans for laying out small tracts of ground. Beveled boards. Post paid, $1.50.

Woodward's Suburban and Country Houses.
RURAL ART, No. 2. By Geo. E. Woodward, Architect and Civil Engineer. With Designs and Plans of Country and Suburban Houses, and numerous examples of the French, or Chateau Roof. Beveled boards. Post paid, $1.50.

Woodward's Country Homes.
A Practical Work, by Geo. E. Woodward, Architect, with 150 Designs and Plans of Country Houses of moderate cost, with illustrated Description of the manner of constructing Balloon Frames. Post paid, $1.50.

Wheeler's Rural Homes.
Houses suited to American Country Life. Illustrated with Original Plans and Designs, and full Directions for Designing, Building, Heating and Furnishing, and Form of Contract and Specification. Post 8vo, beveled boards, 300 pages. Post paid, $2.00

Wheeler's Homes for the People.
For the Suburb and Country. The Villa, the Mansion, and the Cottage. With Examples showing how to Alter and Remodel Old Buildings. 100 Original Designs, with full descriptions and constructive and miscellaneous details. Post 8vo, beveled boards, 440 pages. Post paid, $3.00.

Jacques' Manual of the House.
RURAL ARCHITECTURE; or, How to Build Dwellings, Barns, Stables and Out-Buildings of all kinds. With a chapter on Churches and School-Houses. 126 Designs and Plans. 12mo. 175 pages. Post paid, $1.50.

Rural Church Architecture.
Comprising a series of Designs for Churches. Exemplified in Plans, Elevations, Sections and Details. By Upjohn, Renwick, Wheeler, Wells, Austin, Stone, Cleveland, Backus, Reeve, etc. 1 folio volume, printed in colors, 45 plates. Post paid, $12.00.

Ritch's American Architect.
Comprising Original Designs for low priced Country and Village Residences; with Details, Specifications, Plans and Designs, and an Estimate of cost of each Design. Containing about 250 Illustrations to Working Scale. One Handsome Thick Quarto Volume, bound in half morocco. Post paid, $10.00.

GEO. E. WOODWARD,
Publisher of Architectural Books,
191 Broadway, New York.

WOODWARD'S

COUNTRY HOMES,

A New, Practical and Original Work on

RURAL ARCHITECTURE.

BY GEO. E. WOODWARD,

ARCHITECT.

Elegantly Illustrated with 150 Designs and Plans of Houses of Moderate Cost.

WITH A

Chapter on the Construction of Balloon Frames.

Price $1.50, mailed free to any address.

"This work contains between its covers more practical information than can in many cases be sifted out of thousands of folios. Mr. Woodward is an architect of note, and his work we warmly commend to our readers."—*Ithaca, N. Y., Journal.*

"Contains a large number of very chaste and beautiful designs for snug, comfortable homes. The chapter on what is termed Balloon Framing, with the clear diagrams, is worth alone, to country builders, the whole cost of the book.

"We have long known this gentleman as an architect, and we regard him as among the most reliable and skillful men in the profession. His new work on 'COUNTRY HOMES' ought to be in the hands of every man that builds or contemplates building a home."—*Scientific American.*

PUBLISHED BY

GEO. E. WOODWARD,

191 BROADWAY, NEW YORK.

WOODWARD'S

COTTAGE AND FARM HOUSES.

RURAL ART, No. 1.

BY GEO. E. WOODWARD,

ARCHITECT.

178 ORIGINAL DESIGNS AND PLANS

OF

LOW-PRICED COTTAGES AND FARM HOUSES,

WITH NUMEROUS

Plans for Laying Out Small Tracts of Ground.

Beveled boards. Post-paid, $1.50.

This work contains Plans for Buildings ranging in cost from $1,000 to $4,000, and is the only book published on Cottage Architecture in which the designs have been made with a view to the most economical expenditure. The Plans and Hints will be found of great value in deciding on the arrangement of a low-priced Country Home and its surroundings.

PUBLISHED BY

GEO. E. WOODWARD,

191 BROADWAY, NEW YORK.

WOODWARD'S

Suburban & Country Houses.

RURAL ART, No. 2.

BY GEO. E. WOODWARD,

ARCHITECT.

WITH

70 DESIGNS AND PLANS

OF

COUNTRY AND SUBURBAN HOUSES.

AND

Numerous Examples of the French or Chateau Roof.

Beveled boards. Post-paid, cloth, $1.50.

WITH A

Complete Set of Specifications, Hints on Building, and Essays on Heating and Ventilation.

"From the authoritative pen of Geo. E. Woodward, a known expert in all that relates to architecture."—*New York Weekly.*

"Mr. Woodward is a practical architect, and his taste is unquestioned by those who have seen his own residence and the many edifices designed by him."—*Protestant Churchman.*

PUBLISHED BY

GEO. E. WOODWARD,

191 BROADWAY, NEW YORK.

ARCHITECTURAL BOOKS,

For Sale, or sent Post-paid on receipt of price.

BY

GEO. E. WOODWARD,

191 BROADWAY, NEW YORK.

Allen's Rural Architecture $1 50
Bell's Carpentry Made Easy. 38 Plates. All styles of Framing 5 00
Cleaveland's Villas and Cottages 4 00
Downing's Cottage Residences 8 00
Downing's Country Houses 8 00
Downing's Landscape Gardening 6 50
Ferguson's History of Modern Architecture. 312 Illustrations. (London Edition) 18 00
Fowler's Home for All. Concrete Houses 1 50
Gwilt's Encyclopedia of Architecture 30 00
Hatfield's American House Carpenter 3 50
Holly's Art of Saw Filing. 44 Engravings 0 75
Holly's Carpenter and Joiner's Hand-Book 0 75
Kemp's Landscape Gardening. 200 Illustrations 2 00
Loudon's Encyclopedia of Cottage, Farm, and Villa Architecture. 2000 Engravings 25 00
Milwain and Young's Angular Geometrical Stair-Builder 3 00
Painter, Gilder and Varnisher's Companion 1 75
Ruskin's Seven Lamps of Architecture 1 75
Silloway's Modern Carpentry 2 00

ARCHITECTURAL BOOKS.

Riddell's Carpenter and Joiner and Elements of Hand-Railing. 32 plates $7 00
Burns' Model Designs for Mansions, Villas, Cottage Residences, &c., with several hundred plans and details. Large quarto, London edition. 15 00
Nicholson's Carpenter's New Guide. A Complete Book of Lines 5 00
Barnard's School Architecture 3 00
Johonnot's Country School Houses 5 00
Newland's Carpenter's and Joiner's Assistant. A Complete Treatise on Carpentry, Joinery, Lines, Geometry, Drawing, &c., with several hundred illustrations. London edition. 40 00
The London Builder. Monthly, per annum 12 00
The London Building News. Monthly, per annum 12 00
Arches, Piers, Buttresses, &c. London ed. 80
Art of Architectural Modelling in paper. 80
Erection of Dwelling Houses. By S. H. Brooks. London edition 1 50
Masonry and Stone-Cutting. London edition. 1 25
Drainage of Towns and Buildings. Do. 1 25
Designs in Architecture. Do. 1 25
Hughes' American Miller and Millwrights' Assistant 1 75
Pallett's Miller and Millwrights' Guide 3 50
Warming and Ventilation. London edition 1 75
Carpentry and Joinery. London edition 80
Leed's Lectures on Ventilation 1 25

ARCHITECTURAL BOOKS.

Sloan's Homestead Architecture 4 50
Sloan's Constructive Architecture 10 00
Sloan's City and Suburban Architecture 15 00
Sloan's Model Architect. 2 quarto vols 25 00
Vaux's Villas and Cottages 3 00
Whildin on the Strength of Materials 2 00
Appleton's Encyclopedia of Drawing 10 00
Barnard's Theory and Practice of Landscape Painting in Water Colors 10 00
Chapman's American Drawing-Book 5 00
Clark's Elements of Drawing 1 00
Johnston's Complete Course of Mechanical, Engineering & Architectural Drawing 10 00
Knight's Ornamental Alphabets 1 00
Minifie's Mechanical Drawing 4 00
Smith's Manual of Linear Perspective 2 00
Warren's Manual of Linear Perspective 1 00
Haswell's Engineer's Pocket-Book 3 00
Cottage Building ..... Lond. ed. 80
Foundations and Concrete Works. " 80
Limes, Cements, Mortars, etc. ..... " 80
Ashpitel. Treatise on Architecture. " 15 00
Glossary of Architectural Terms ..... " 5 00
Parker's Introduction to Study of Gothic Architecture. 183 illustrations. London ed. 3 50
Orders of Architecture ..... " 80
Styles of Architecture ..... " 75
Art of Building ..... " 80
Brick and Tile Making ..... " 1 00

Orders executed promptly for Books on any subject.

Address, **GEO. E. WOODWARD**, Publisher of Architectural Books, 191 Broadway, New York.

Agricultural & Horticultural Books

For Sale at Publishers' Prices, or mailed post-paid,

BY GEO. E. WOODWARD,

191 BROADWAY, NEW YORK,

Orders executed promptly for Books on any subject.

Am. Agricultural Annual. Pa. 50c. clo. ..... $ 75
Am. Horticultural Annual. Pa. 50c. clo. 75
Breck's New Book of Flowers 1 75
Buist's Flower Garden Directory 1 50
Bulbs. By E. S. Rand 3 00
Bridgeman's Amer. Gardener's Assistant 2 50
Brown's Field Book of Manures 1 50
Husmann's Culture of the Native Grape and Manufacture of American Wines 1 50
Downing's Fruits of America 3 00
Dana's Muck Manual 1 50
Dadd's Horse Doctor 1 50
Dadd's Cattle Doctor 1 50
De Brueil's Vineyard Culture of the Grape 2 00
Eastwood on Cranberry 75
Elliott's Lawn and Shade Trees 1 50
Fuller's Forest Tree Culturist 1 50
Fuller's Grape Culturist 1 50
Fuller's Small Fruit Culturist 1 50
Garden Vegetables. By Fearing Burr 2 50
Harasthy Grape Culture. Wine Making 5 00
Henderson's Gardening for Profit. New 1 50

AGRICULTURAL BOOKS.

Herbert's Hints to Horsekeepers 1 75
Langstroth on the Honey Bee 2 00
My Vineyard at Lake View 1 25
Mead's Grape Culture 3 00
Onion Culture 25
Our Farm of Four Acres. Paper, 30 cts; bound 60
Our Farm of Two Acres 20
Pardee on Strawberry 75
Quinby's Mystery of Bee-keeping 1 50
Saunders' Domestic Poultry. Pap. 40 cts.; clo. 80
Thomas' American Fruit Culturist. New 3 00
Ten Acres Enough 1 50
Todd's Young Farmer's Manual. Vol. I 2 50
" " " " Vol. II 2 50
Tucker's Annual Register of Rural Affairs 30
Tucker's Rural Affairs. Four bound vols. Each 1 50
Warder's American Pomology — Apples. New 3 00
Waring's Draining for Health and for Profit 1 50
Wells' Every Man his own Lawyer 2 00
Woodward's Record of Horticulture, 1866 1 00
" " " " 1867 1 00
Youatt on the Horse 1 50

Address, GEO. E. WOODWARD, Publisher,

191 BROADWAY, NEW YORK.

NEW BOOKS

RECENTLY PUBLISHED.

MASURY'S TREATISE

ON PLAIN AND DECORATIVE

HOUSE PAINTING.

Showing the Nature, Composition and mode of production of Paints and Painters' Colors, and their proper and harmonious combination and arrangement. Post paid $1.75.

MASURY'S

HINTS ON HOUSE PAINTING,

Or, Paints and Colors and How to Use them. Post-paid, 75 cts.

507 Mechanical Movements,

EACH ILLUSTRATED;

Embracing all those which are most important in Dynamics, Hydraulics, Hydrostatics, Pneumatics, Steam Engines, Mill and other gearing, Presses, Horology and Miscellaneous Machinery, including many movements never before published and several which have only recently come into use. By Henry T. Brown, Editor *American Artizan*. Post paid, $1.25.

DRAWING INSTRUMENTS

FOR

BUILDERS, ARCHITECTS AND ENGINEERS.

For sale by GEO. E. WOODWARD, 191 Broadway, N. Y.

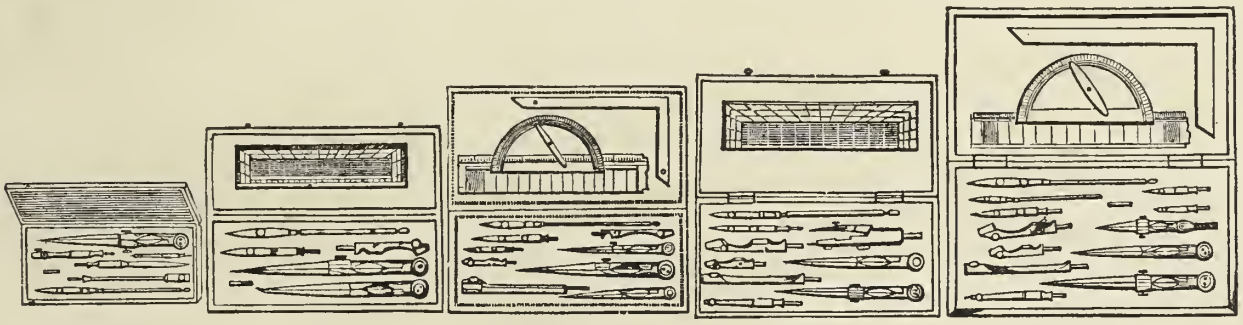
Cases of Brass Instruments.

No. 1.—Rosewood Box, pair of 5½ inch Dividers with Pen and Pencil Points and Lengthening Bar, pair of 4½ inch Dividers, Drawing Pen and Ivory Scale 6 inches long, ... per set $3 50

" 2.—Rosewood Box, Pair of 6 inch Dividers, with Pen and Pencil Points and Lengthening Bar, pair of 4½ inch plain Dividers, Drawing Pen, pair 3½ inch Dividers, with Pen and Pencil Points; Ivory Scale 6 in. long, 4 00

" 3.—Rosewood Box, pair of 6 inch Needle Point Dividers, with Pen and Pencil Points and Lengthening Bar, pair 4½ inch plain Dividers, pair 3½ inch Needle Point Dividers, with Pen and Pencil Points, Drawing Pen, Ivory Scale, 6 inches long, ... per set 4 50

" 4.—Rosewood Box, with lock and key, the instruments set in a tray, so that colors, etc., may be put below, pair of 6 inch needle point Dividers, with Pen and Pencil Points and Lengthening Bar, Drawing Pen, pair 4½ inch plain Dividers, pair 3½ inch Needle Point Dividers, with Pen and Pencil Points, Spring Bow Pen with Needle Point, Ivory Scale, 6 inches long, ... per set 5 50



No. 5. No. 6. No. 8. No. 9. No. 10.

Cases of Fine German Silver Instruments.

No. 5.—Morocco Box, pair 5½ inch Dividers with Pen and Pencil Points, Drawing Pen and Ivory Scale, 6 in. long, . 4 50

6.—Morocco Box, pair of 5½ inch Dividers, with Pen and Pencil Points, pair of 5 inch plain Dividers, Drawing Pen, Ivory Scale, 6 inches long, ... per set 5 00

" 7.—Morocco Box, rounded corners, for carrying in the pocket, pair of 3¾ inch Dividers, with hinge in one leg, Needle Points, with Pen and Pencil Points, and Lengthening Bar, Spring Bow Pen, Needle Point pair of 4 inch plain Dividers, rounded point, Drawing Pen, ivory handle, and 6 inch Ivory Scale, . . . 9 00

" 8.—Morocco Box, pair of 5½ inch Dividers, with Pen and Pencil Points, and Lengthening Bar, pair of 5 inch plain Dividers, pair of 3 inch Dividers, with Pen and Pencil Points, Drawing Pen, German Silver Protractor, German Silver Square, Ivory Scale, 6 inches long, ... per set 11 00

" 9.—Morocco Box, pair of 5½ inch Dividers, with Pen, Pencil and Needle Points, and Lengthening Bar, pair of 5 inch plain Dividers, Spring Bow Pen, Drawing Pen, Ivory Scale, 6 inches long, . . . per set 11 00

" 10.—Polished Walnut Box, pair 5½ inch Dividers, with Pen, Pencil and Needle Points, and Lengthening Bar, pair 5 inch plain Dividers, pair of 3 inch Dividers, with Pen, Pencil and Needle Point, 2 Drawing Pens, German Silver Square, German Silver Protractor, Ivory Scale, 6 inches long, ... per set 15 00

" 11.—Morocco Box, pair of 5½ inch Dividers, with Pen, Pencil and Needle Points, and Lengthening Bar, pair of 5 inch plain Dividers, 2 Drawing Pens, and 6 inch Ivory Scale, ... per set 8 00

WHATMAN'S BEST DRAWING PAPER.—By the Quire only, 24 sheets.

20 × 15 Demy, . $1 50	24 × 19 Royal, . $3 00	28 × 23 Elephant, . $5 50	34 × 26 Atlas, . $6 50
22 × 17 Medium, 2 00	27 × 19 Super Royal, 3 50	30 × 22 Imperial, . 6 00	40 × 27 Double Elephant, 8 00

LEAD PENCILS.—By the Dozen only.

A. W. Faber's Siberian Lead Pencils, B. HB. & H. . $2 50	A. W. Faber's black, round and gilt, Star, Nos. 1, 2, 3, 4, $0 50
A. W. Faber's Hexagonal, Gilt, Nos. 1, 2, 3, 4, . 1 50	A. W. Faber's Polygrades in boxes, 4 in each box, per box 1 50
A. W. Faber's black, round and gilt, Nos. 1, 2, 3, 4, . 1 00	" " " " 7 " " " 2 00
A. W. Faber's black, round and gilt Union, Nos. 1,2,3,4, 60	Eagle Pencils, 7 in each box, per box, ... 1 25

Cases of Drawing Instruments made up to suit the requirements of any one, and prices furnished for Architects and Engineers' Stationery of all kinds. Above articles carefully packed and delivered to Express Company here. Letters of Enquiry promptly answered.

Address, **GEO. E. WOODWARD, 191 Broadway, New York.**

MINTON'S

Encaustic Tiles for Floors.

MINTON'S ENCAUSTIC AND PAVING TILES,

FOR

Vestibules, Halls, Hearths, Conservatories, etc., in Dwellings,

AND FOR

CHURCHES, BANKS, STORES, Etc.,

AS LAID BY US IN THE

CAPITOL AT WASHINGTON.

GLAZED WALL TILES,

In Brilliant Colors for Grates and Fire-Places,

AND FOR INSERTION IN

WAINSCOTING, MANTELS, DOOR-FRAMES, FURNITURE, Etc.

Both kinds of Tiles are used in Panels of Brick and Stone,

FOR

EXTERIOR DECORATION.

GARNKIRK CHIMNEY TOPS, GLAZED STONE WARE DRAIN PIPES.

PLUMBERS' MATERIALS,

AND FIXTURES OF EVERY DESCRIPTION, READY FOR USE.

For Sale by

MILLER & COATES,

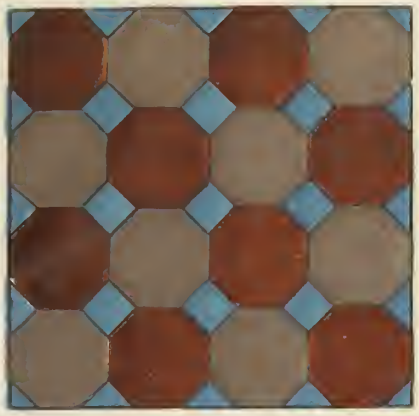
279 Pearl Street, New York.

PATTERNS OF MINTON'S TILES FOR FLOORS,

FOR SALE BY

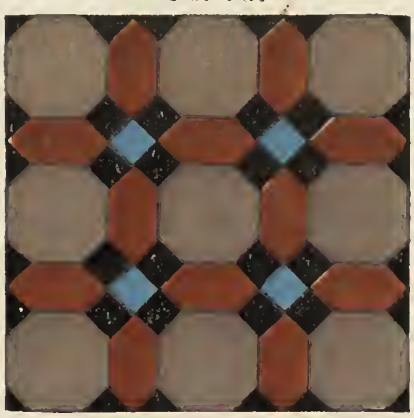
MILLER & COATES, 279 PEARL ST. NEW YORK.

No 18.



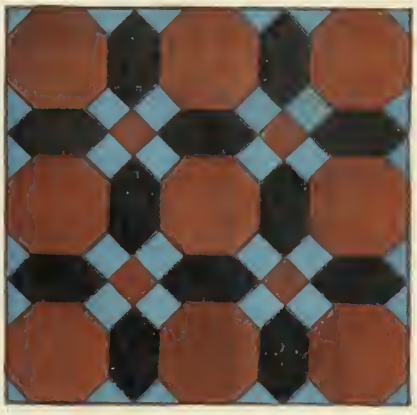
c. sq. foot. c. laid.

No. 20.



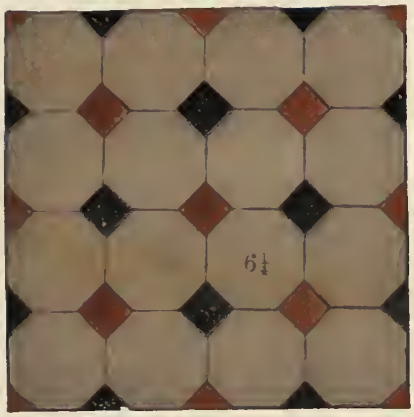
c. sq. foot. c. laid

No. 22.



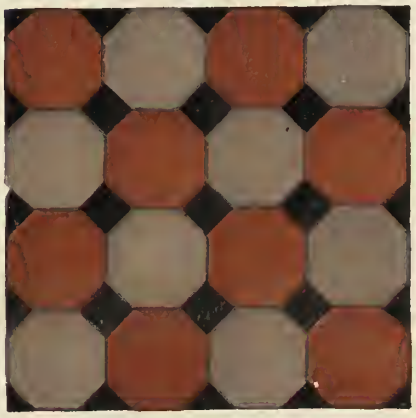
c. sq. foot. c. laid.

No. 17.



c. sq. foot. c. laid.

No. 19.

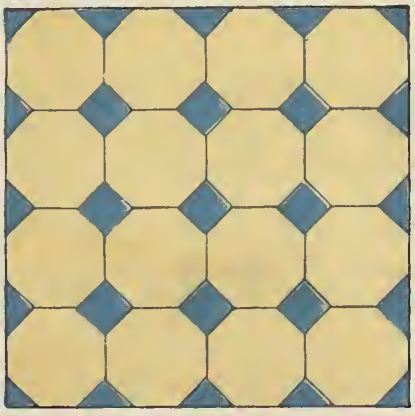


c. sq. foot. c. laid.

No. 21.

c. sq. foot. c. laid.

No. 2.



c. sq. foot. c. laid.

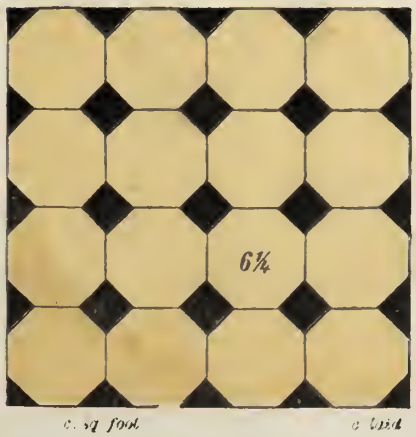
No. 5.

c. sq. foot. c. laid.

No. 8.

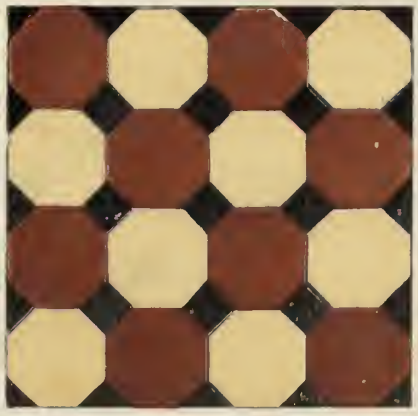
c. sq. foot. c. laid.

No. 1.



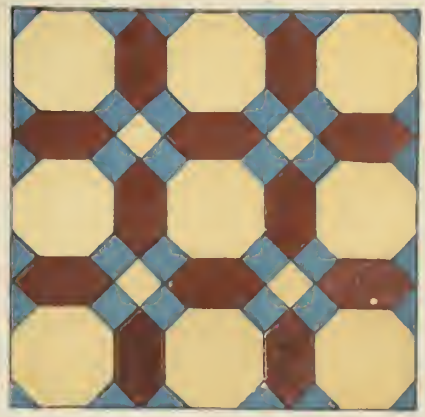
c. sq foot. c laid

No. 3.



c sq foot. c. laid.

No. 6.



sq foot. c. laid.

UNIVERSITY OF ILLINOIS-URBANA
3 0112 106517326